HOSPITAL ABSTRACTS

A MONTHLY SURVEY OF WORLD LITERATURE

PREPARED BY THE DEPARTMENT OF HEALTH

AND SOCIAL SECURITY

VOLUME 19, NO. 11, ABSTRACTS 1550-1697. NOVEMBER 1979

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HOSPITAL ABSTRACTS

Vol. 19 November, 1979 No. 11

HOSPITALS IN OTHER COUNTRIES

See also Abstract Nos. 1566, 1567, 1573, 1647

1550. SALMON, P. F. Le recours au système hospitalier et la consommation des actes. **[Utilization of the hospital system and the use of services.]** *Hôpital à Paris*, Paris, 1979, March/April, no. 50, pp. 153-162.

The second part of a study on costs of hospital stay, entitled 'Use of the hospital system', has just been published by CERC (Income and Cost Research Centre). It analyses the overall consumption of care, using conventional indicators of hospital activity (admission, length of stay, medical services provided, number of days the beds are occupied per annum). Activities relating to injuries, mental illness, tuberculosis and childbirth, and use by old people and children are then examined in greater detail. The author considers various aspects of the study, including: (i) the rise in the number of operations, X-rays, and laboratory investigations in different types of public hospital between 1965 and 1973; (ii) the reduction in the average length of hospital stay; (iii) differences between the private and public sector; and (iv) the impact of increasing use of out-patient departments (100 per cent between 1965 and 1973) on demand for laboratory and X-ray examinations.

1551. CRUL, P. W. and DEKKER, M. C. Het verpleeghuis in kritisch perspectief. **[A critical look at the nursing home.]** *Ziekenhuis*, Utrecht, 1979, June 20, vol. 9, no. 12, pp. 288-292.

The number of nursing homes is increasing as a result of: medical developments, specialization requiring short hospital stay with nursing home after-treatment, low nursing home costs against hospital costs, improved insurance schemes, increase in the elderly population, and changes in social and family patterns. Nursing homes provide medical (non-specialist) treatment, rehabilitation by physiotherapy, and terminal care. To create a generally suitable environment in a home for patients with great divergencies in age and condition is not possible. An individual approach to the patient is suggested with the patient performing useful tasks in the home and with the stimulation of outside contacts. To combat rapid staff turnover (because of monotonous and heavy physical work), the formation of co-operating groups in which all ranks share the unpleasant chores, is suggested. A pleasant and stimulating working atmosphere should take precedence over efficiency. To achieve these aims would mean changes in relations between hospitals and nursing homes, a different attitude towards euthanasia and introduction of sociotherapy (using the environment for therapeutic effect). The paper includes a table of comparison of costs, and bed occupancy of hospitals and nursing homes.

1552. CHRISTOFFEL, D. La situation hospitalière en Belgique. **[The hospital service in Belgium.]** *Hôpital Belge*, Bruxelles, 1979, March/April, vol. 22, no. 138, pp. 49-51.

The Belgian Ministry of Public Health has recently published a 147-page volume of

statistics giving the results of a survey carried out in 1978. The author has extracted the most significant figures and presents them together with a commentary. In 1977, the public sector provided 38 per cent of all hospital beds; this represents a larger proportion of all acute and psychiatric beds than in 1971 but a smaller proportion of geriatric, specialist, and sanatorium beds. The total number of private plus public sector beds has risen from 80,392 in 1971 to 89,596 in 1978, and there are now 9.11 beds per 1,000 population. Thirty-two hospitals and six sanitaria have closed since 1971 but 13 psychiatric establishments and 46 geriatric units have been opened since 1973. The average bed occupancy rate for all types of hospital was 85.66 per cent in 1977; the average length of stay in an acute hospital was 12.37 days, in a psychiatric hospital 161.66 days, and in a geriatric hospital 84.30 days.

1553. KRISTIANSEN, K. **Hospital services in Oslo.** *Journal of the Oslo City Hospitals*, Oslo, 1979, May/June, vol. 29, nos. 5/6, pp. 51-71.

This special issue was prepared for presentation to delegates to the International Hospital Congress held in Oslo in June 1979. It describes the administration and finances of hospital services in Oslo with brief information on individual hospitals, whether owned by the City of Oslo, by the State, or by private organizations.

1554. OLDENHOVE, J. La clinique Saint-Pierre à Ottignies. **[St. Peter's Clinic at Ottignies.]** *Hôpital Belge*, Bruxelles, 1979, May/June, vol. 22, no. 139, pp. 5-9.

Construction of the Saint-Pierre Clinic was begun in 1970 and it was opened in 1973. Full use was made of the sloping site and it was possible to economize on lifts and to use natural lighting almost throughout. The clinic is built in the shape of an H with half of one vertical missing; one wing has six and a half storeys, one has seven, and the other two have eight. Separate routes are provided for in-patients and out-patients. The clinic has 397 beds (150 surgical, 120 medical, 24 maternity, 29 psychiatry). The emergency department and the X-ray unit are near the entrance for ambulances, while the operating theatres, recovery room, and laboratories are on the top floor. It is hoped to add another 160-170 beds in 1982. Two diagrams are included in the description, and a photograph of the clinic appears on the cover of the journal.

1555. CNOPS, J. L. L'Hôpital Académique de la 'Vrije Universiteit Brussel' V.U.B. à Jette. **[The teaching hospital of the 'Vrije University, Brussels' at Jette.]** *Hôpital Belge*, Bruxelles, 1979, May/June, vol. 22, no. 139, pp. 13-21.

This hospital has been built to meet the needs of the new Dutch-speaking University of Brussels, Faculty of Medicine. A standardized design was chosen to give maximum flexibility, as it was not clear at the start which departments would require the most space; for the same reason the internal walls are made of plaster on a metal frame and are easy to demolish. There are two eight-storey wings on either side of a central tower. The patient care units (30 beds in one- and two-bedded rooms) are on the top five floors. A complete air conditioning system with energy exchange and recuperation with heat pumps was planned but rejected because of the high capital cost. In the light of the energy crisis, this is now seen to have been a mistake. A central processor is used to monitor and operate the main technical installations; for example, the ventilation system in the out-patient department is shut down when the department is not in use.

1556. HOET, T. Le centre hospitalier de Tivoli à La Louvière. **[The Tivoli Hospital Centre at La Louvière.]** *Hôpital Belge*, Bruxelles, 1979, May/June, vol. 22, no. 139, pp. 23-26.

The Tivoli hospital at La Louvière, designed by Hoet and Minne, was opened in 1976. Built in the shape of a three-pointed star, it has 555 beds and a large out-patient department. The eight-floor ward blocks rest on a wider four-floor base which houses the technical departments. Particular attention has been paid to hygiene: separate routes have been provided for clean and soiled material; there are protective barriers around the isolation zones; and air conditioning operates with a variable atmospheric pressure system. The furniture for the patients' rooms was designed by Bruno Stoppa, and a W.C. adapted to the special needs of patients has also been designed.

1557. MAESSCHALCK, W. de. La nouvelle Biloque: un hôpital régional. **[The new Biloque: a regional hospital.]** *Hôpital Belge*, Bruxelles, 1979, March/April, vol. 22, no. 138, pp. 9-11.

Because of the particular age structure in the region, the 726-bed Biloque hospital in Ghent, now under construction, will have 290 beds for patients with chronic diseases, and 192 for rehabilitation. The height (eight storeys) of this H-shaped block was determined by the limited area available, the amount of parking space required, the requirements of the automatic internal transport system, and the need for harmony with the architecture of the surrounding buildings. The majority of the care units have single or double rooms opening off a single corridor; this will reduce the distances that the nurses have to walk and make observation from a single nursing station possible. Air conditioning is provided in the theatres, resuscitation and intensive care units, the X-ray department, and the cubicles in the psychiatric department. To speed up the administrative processes relating to planning and construction, a committee of representatives from the Public Social Aid Centre, the city, the province, and the Ministry of Health, meets once a month.

1558. Ny försörjningscentral vid Centralsjukhuset i Karlstad. **[The Karlstad Central Hospital's new services centre.]** *Sjukhuset*, Göteborg, 1979, vol. 56, no. 3, pp. 145, 147-148.

A services centre was opened at Karlstad Central Hospital in November 1978 as the first stage in an extension plan due for completion at the end of the 1980s. It covers 27,000 m^2 and comprises: central kitchens, a 350-place staff dining-hall and a 100-place cafeteria; cleaning services centre; library; teaching facilities; and lecture hall. The medical departments include the eye clinic, otorhinolaryngology, oncology, orthopaedic workshops and an auditory training centre. The central kitchens supply the hospital and institutions in the Karlstad area with 5,000 portions (30 different diets) a day, and a high degree of mechanization has been introduced. The cleaning centre is also highly mechanized, with stainless steel equipment and trolleys, and access to high pressure supply lines in the centre itself, the kitchens, and the technicians' rubbish-handling department. The library which acts as the county central medical library, is 550 m^2 in area and is linked with an internal television studio and large teaching area and lecture hall. The centre is built of prefabricated concrete elements, and the ventilation system utilizes heat re-cycling.

1559. PHILLIPS, L. L'Hôpital de la Citadelle à Liège. **[Citadel Hospital, Liège.]** *Hôpital Belge*, Bruxelles, 1979, March/April, vol. 22, no. 138, pp. 26-34.

The Citadel Hospital in Liège, due to open in 1980 will have 1,022 beds, including 288 for medicine, 342 for surgery, 78 for psychiatry, 130 for paediatrics, and 72 for maternity cases. The site was selected because access to the centre of the city was easy and ample parking facilities were available. Built in the shape of a double H, it will be only six storeys high to enable it to blend with its surroundings. The offices, reception area, cafeteria, out-patient clinics, and the emergency department occupy the ground floor; the X-ray department and the 12 operating theatres take up the first floor; the care units occupy floors two to five. Each unit has two four-bedded rooms, eight two-bedded rooms, and seven single rooms. The sixth floor is devoted mainly to staff accommodation. The presence of old mine workings beneath the site has increased the construction costs considerably.

1560. Tumba sjukhus i Botkyrka kommun, Stockholms län. **[The Tumba Hospital in Botkyrka Urban District, Stockholm County.]** *Sjukhuset*, Göteborg, 1979, vol. 56, no. 3, pp. 128-130.

Tumba Hospital is the fourteenth in a series of sixteen annexe hospitals for long-term care to be built in the Stockholm area since 1963. The hospital was planned for 192 beds in 1970 but this was later extended to 288 beds, including 96 psychogeriatric beds. Tumba is a suburb 15 miles south of Stockholm, 9 miles from Södertälje. The site consisted of a 10-metre layer of clay over bedrock, which led to problems with the foundations during construction. The closed wards are housed in a six-storey block, with one- and four-patient rooms. Reception and medical service departments are housed in single-storey pavilions, whilst technical facilities and administration occupy a two-storey wing along one side of the hospital. Construction is of concrete, on legs driven down to bedrock. The ward block floors are pre-cast concrete elements; the pavilions have metal girdering and wooden roofs, permitting sideways extension.

PLANNING, DESIGN AND CONSTRUCTION

1561. MOSS, R. **Multi-professional planning and design teams, problems and possibilities.** *Hospital Engineering*, London, 1979, June, vol. 33, no. 5, pp. 16, 18-22.

The rationale for multi-professional teams, representing both user and designer professions, in hospital planning and design is presented. The roles of individual team members are outlined. The problems of such an approach include the following: (i) because planning is a multi-professional exercise, in the process of planning the 'gaps' between professional knowledge become more important than that knowledge itself; (ii) because planning teams lack a common language they are incapable of defining adequately their common objectives; (iii) because of the first two problems a hierarchy of words and meanings, and the frame of reference that goes with them have disintegrated; and (iv) as a result function and design have become so divorced that function-based planning and meaningful objective evaluation have become increasingly difficult. The teaching of multi-professional groups is proposed as a solution to the problems. Features of multi-professional courses operated at the Medical Architecture Research Unit, London, are outlined.

1562. SAHL, R. J. Planungsrahem für Investitionskosten. **[Planning and investment costs.]** *Krankenhaus-Umschau*, Kulmbach, 1979, July, vol. 48, no. 7, pp. 570-572.

The author discusses the relationships between planning decisions, capital expenditure and running costs. Planning decisions based on a policy of low capital expenditure can lead to greatly increased investment when improvements and extensions are found to be necessary after a few years; this has happened with hospitals built in Western Germany in the 1950's and 1960's. An analysis of 100 general hospitals with between 180 and 1,200 beds showed costs per patient day varying between DM100 and DM250; average length of stay between 9.5 and 20.5 days; and average cost per case between DM1,700 and DM3,760: high and low costs per case were found among hospitals at all levels. A modestly built and modestly equipped hospital had a far higher cost per case than a hospital built and equipped to high standards. The ward unit rather than the number of beds or patients' rooms should serve as the reference point for space requirements. There is no proof that reducing the floor area to a minimum contributes to reduced costs. Technological equipment standards can vary greatly and have an important effect on costs.

CONSTRUCTION METHODS AND BUILDING MATERIALS

See Abstract No. 1565

HOSPITAL DESIGN

See also Abstract Nos. 1561, 1569

1563. EDWARDS, K. **The environment inside the hospital.** *Practitioner*, London, 1979, June, vol. 222, no. 1332, pp. 746-749, 751.

The author considers the designs and colour schemes suitable for the parts of the hospital seen by patients, staff and visitors. Relaxing, but not monotonous colours, should be used in wards, and the day room should be quite different, providing the patient with a more domestic atmosphere. To help keep the hospital clean, paints should be washable. Off-duty rooms for staff should be wallpapered and carpeted and staff quarters situated in separate buildings within the hospital grounds. The visitors' view of the hospital must be welcoming and colour can be useful in guiding people along certain routes. Out-patient waiting areas should be calming and examination rooms decorated according to the type of work being carried out. Colours and furniture need to be chosen carefully in geriatric areas where patient's eyesight and mobility may be impaired. Rooms for psychiatric patients should be decorated in non-aggressive colours with sharp angles rounded off wherever possible. Doctors and designers need to work together to create a domestic rather than an institutional environments in large psychiatric hospitals.

1564. SCHÖNFELD, J. W. Problematok der Krankenhausplanung. **[Problems in hospital planning.]** *Deutsche Bauzeitschrift*, Gütersloh, 1978, Sept., vol. 26, no. 9, pp. 1219-1225.

In half of the hospitals covered by this West German study, alterations were deemed

necessary; in 20 per cent of these hospitals their construction made alterations impracticable. The first signs of obsolescence occur after hospitals have been in use for seven to eight years, and bad design makes changes difficult. Eighty per cent of subsequent alterations in wards have been concerned with intensive care needs but developments in medical technology have also affected the planning of examination and treatment departments. The planning and construction of hospitals must not be based primarily on short-term economic considerations.

1565. LABRYGA, F. Möglichkeiten und Grenzen der Standardisierung im Krankenhausbau. **[Possibilities and limitations in the standardization of hospital building.]** *Krankenhaus-Umschau*, Kulmbach, 1979, June, vol. 48, no. 6, pp. 480, 486-490, 493.

A detailed examination of possibilities and limitations in the standardization of hospital building comes to the conclusion that economic planning requires the use of standards to solve a number of problems. Standards mean simplification and rationalization. They involve limitations of variety but should not inhibit innovation; they should be quickly and easily adaptable to meet technical and scientific developments and they are 'sharp instruments which need to be handled by experts'. Standardized planning must be continuously up-dated to meet changing circumstances in medicine, technology, architecture, economics and health policy; and means to assure a consensus for newly developed standards must be provided.

DESIGN OF INDIVIDUAL GENERAL HOSPITALS

See also Abstract Nos. 1555-1559

1566. Aust-Agder Sentralsjukehus. **[Aust-Agder Central Hospital.]** *Norsk Sykehustidende*, Oslo, 1979, vol. 52, no. 4, pp. 14, 16, 18.

Aust-Agder and Arendal Hospital, built for 100 patients in 1920, was extended temporarily in 1944; the present buildings replacing the original ones are the result of a prize-winning architectural competition set in 1952. On a star-shaped plan, the following stages have been constructed: kitchens (1958); boilerhouse and laundry (1960); the 150-bed north-western ward block, plus out-patients and admissions department (1966); the therapeutic block (1971) including laboratories, operating theatres, children's wards, cafeteria, offices and central stores; and the south-western ward block (1978). The S.W. block was 29 months under construction and has a floor area of 13,400 m^2 (ground plan, 2,900 m^2). It consists of two sections: a seven-storey, 195-bed ward block and a three-storey block for physiotherapy, occupational therapy, and socio-medical department offices. The further plans for the hospital comprise the temporary housing of a series of extra facilities in the S.W. Block, the demolition of the 'old' (1920 to 1944) buildings, and the construction of a 12,000 m^2 net (2,150 m^2 ground plan) block for acute admissions, out-patients, laboratories, eye department, dental service, obstetric department, an enlarged surgical department, an intensive care and coronary observation department, an enlarged X-ray department, and more offices—giving 417 general beds and 40 specialist beds in all.

1567. Kantonsspital Basel/Universitätskliniken. **[Basel Cantonal and University Hospital.]** *Veska*, Aarau, 1979, April, vol. 43, no. 4, pp. 201-205; 1978, Dec., vol. 42, no. 12, pp. 633-637; 1978, Sept., vol. 42, no. 9, pp. 447-454.

When completed in 1979/80 the Cantonal and University Hospital at Basel will consist of three main complexes: (i) the surgical ward and treatment block (completed immediately after the Second World War); (ii) the medical ward and treatment block; and (iii) the supply and service departments, teaching and research units and staff restaurant and canteen. The medical block, which has been coming into use over the years 1976 to 1979, has five ward floors on a double corridor plan each with two 48-bedded wards consisting of three 16-bedded nursing groups. Most patients' rooms are two-bedded but there are four four-bedded rooms and two isolation rooms. There is a toilet and shower for every pair of rooms. The complex for service departments, teaching and research has five storeys and two subground floors. This complex also houses a staff restaurant with 450 places and a cafeteria, also with 450 places. The paper is illustrated with a site plan, a number of floor plans and photographs.

EXTENSIONS AND RECONSTRUCTIONS

1568. Beck, R. **Six ways to add more space.** *Trustee*, Chicago, Ill., 1979, May, vol. 32, no. 5, pp. 31, 33, 34, 36.

In both Britain and the United States building costs are rising. One possible economy is to expand existing facilities rather than erect new ones. Various construction alternatives are described and some of the engineering problems highlighted. The author emphasizes the need for plans to be considered by a team including administrators, architects and contractors.

1569. **Building rehab: hospitals.** *Building*, London, 1979, May 18, vol. 236, no. 20, pp. 57-63, 65-66.

For economic and technical reasons, the earlier policy of replacing all old hospitals has been abandoned for one of treating all the hospital building stock as an entity, continuously reviewing its effectiveness and improving it, sometimes by new building, more often by rehabilitation, adaptation and upgrading. This feature looks at a number of aspects and instances of this 'total management' approach. Following a short introduction, there are papers on: (i) a short-cut formula for arriving at an initial judgment as to what kind or degree of upgrading is likely to provide best value; (ii) reduction of heat loss and energy saving; (iii) the upgrading of the accident and emergency department and reception area at Westminster Hospital; and (iv) conversion of a 40-year old laundry to provide a new pathology department.

DESIGN OF SPECIAL DEPARTMENTS

See also Abstract No. 1666

1570. Goodwin, I. H. **A guide to planning critical care units.** *Journal of Nursing Administration*, Wakefield, Mass., 1979, June, vol. 9, no. 6, pp. 20-25.

Confusion and inefficiency resulting from poor design can be particularly serious in

intensive care units. From the earliest stages responsibility for the designs must be given to an individual or a committee of no more than 10. Administrative, nursing and medical staff can all be useful on the committee but there must be a strong representation of people with knowledge of architecture and construction. At the planning stage the following steps are suggested: (i) defining the purpose of the unit; (ii) specifying the principal features and systems affecting its use; and (iii) listing every space on or near the unit. At the design stage there are three further steps: (i) creating a schematic design; (ii) preparing design development drawings; and (iii) preparing working drawings and contract documents. Sub-committees can be formed for any particularly troublesome or important aspects of the project.

DESIGN OF SPECIAL HOSPITALS OR UNITS

1571. Ristrutturazione e risanamento, blocco operatorio di cardiochirurgia Ospedali Riuniti di Bergamo. **[Reconstruction and improvement of the cardiology operating block at Riuniti Hospital in Bergamo.]** *Tecnica Ospedaliera*, Milano, 1979, July/Aug., vol. 9, nos. 7-8, pp. 15-25.

The new operating block for paediatric heart surgery was incorporated into the original building so as to avoid destruction of the attractive façade. The chief aim of the reconstruction was to achieve maximum asepsis using the appropriate technological resources. There are two theatres with a sterilizing unit in between. There is a one-way filter area where staff wash and change and a stretcher change-over point with a barrier at floor level. The pipes and ducts required for the laminar flow equipment are concealed above a false ceiling. The sterilizing unit has a universal steam autoclave, an ethylene oxide autoclave, and automatic ultrasound washing machine, and a hot-air drier. Stainless steel has been used for door frames and posts, cupboards, shelves, the laminar flow installation, and most fittings. The walls and ceilings are covered by the Afraglass method with a 500 micron epoxide varnish and the floors are covered with anti-static vinyl tiles. The description includes 16 photographs, of which three are in colour, and two diagrams.

1572. CANTER, D. V. and CANTER, S., editors. **Designing for therapeutic environments: a review of research.** Chichester, Wiley, 1979, xiv, 352pp.

The physical environment of institutions can influence the state of mind of inmates if not their actual state of health. This collection of British and American articles has been edited by two psychologists with a long standing interest in the subject. Most of the chapters are concerned with psychiatric hospitals but there are sections on the design of acute general hospitals, nursing homes and playground facilities for physically handicapped children.

GARDENS AND GROUNDS, PARKING

1573. LUNDBERG, H. and ADOLFSSON, L.-Å. Sjukhemmens utemiljö. **[The external environment of the nursing home.]** *Sjukhuset*, Göteborg, 1979, vol. 56, no. 3, pp. 139-141, 143.

A nursing home is an institution for long-term care, mainly for older people, three-

quarters of the patients generally being over 70. The site chosen for a nursing home must pay due consideration to noise levels, climatic conditions and above all, contact with the local community. The individual patient must regard the institution as his home and the park outside as his 'garden'; thus he should be able to look out over trees and greenery, not car parks, back yards, blank walls and roofs. The grounds are divided into three zones: (i) the immediate surroundings—the entrance, delivery area and the groups of tables and chairs near the building; (ii) gardens with asphalt paths and the car park concealed by bushes; and (iii) zone of contact with the community. Slopes and sunken portions of the grounds should be utilized for construction of small sheltered areas of privacy for the patients. The article is illustrated with a plan of Graaberg nursing home grounds, four exterior photographs and four sketches illustrating detailed principles of planning.

ENGINEERING SERVICES

INSTALLATIONS IN GENERAL

See Abstract Nos. 1574, 1600

MAINTENANCE OF BUILDINGS AND EQUIPMENT

See also Abstract No. 1579

1574. BARNI, M. and others. Impianti ospedalieri: ipotesi di adeguamento della organizzazione della gestione e della manutenzione. **[Hospital plant, theories of management for services and maintenance.]** *Tecnica Ospedaliera*, Milano, 1979, June, vol. 9, no. 6, pp. 44-51, 56.

A plea for the recognition of the importance to the public hospital system of specialist technical staff who can advise on and maintain the increasingly sophisticated equipment and plant now in use, and for a revision of out-moded concepts, hierarchies, and divisions.

1575. ACHARD, K. C. **Maintenance control: it works!** *Industrial Engineering*, Atlanta, Ga., 1979, June, vol. 11, no. 6, pp. 22-24.

This paper describes the low cost maintenance control system introduced at Midland (Mich.) Hospital Center. The system is based on a four-part daily job ticket (reproduced) which shows consecutively the jobs completed each day. The job entry relates work accomplishment to an increment of time it takes to perform the job thus the employee does not have to subtract starting time from finishing time. When separate the job tickets become a portion of the maintenance records. The benefits of the system are listed. Other aspects of the system described and illustrated are the labour code booklet, cost centre index cards, equipment record cards, maintenance work order and monthly division manager report.

EQUIPMENT, FITTINGS, FURNITURE

INTERIOR DECORATION

See Abstract No. 1563

FLOORS AND FLOOR COVERINGS

1576. OVESEN, P. M. Vinyl—en vedligeholdelsesvenlig belägning. **[Vinyl—an easily maintained type of covering.]** *Tidsskrift for danske Sygehuse*, København, 1979, March, vol. 55, no. 3, pp. 38-40.

Vinyl (polyvinyl chloride or PVC) flooring is flexible, non-slip, and easily cleaned. The range of colours available is very wide, the dyes are stable, and in addition the material can be plastic welded. To withstand wheeled loading, a PVC floor must be manufactured homogeneously (ie, must not consist of layers) and must be pressed and cooled slowly. The PVC binder can be mixed with up to 90 per cent filler, and the composition of such materials must be taken into consideration when assessing optimal resistance to wear. Types of PVC flooring are on the market which do not collect static electricity or adversely affect the indoor atmosphere. The architect must be consulted in the choice of floor surfacing and in its correct fitting to doorways, wainscoting etc. A new development is PVC flooring with foam rubber backing, which dramatically reduces the noise of footsteps. PVC is also suitable for surfacing walls, lifts, doors, corners, bathrooms etc. but special regulations apply to use of materials in 'wet rooms'. Conductive PVC flooring is highly suitable for operating theatres and anaesthesia rooms. Such floors need their electrical properties tested twice a year, and require special glues and washing materials.

1577. BERGMANN, P. Linoleum—et rent naturprodukt. **[Linoleum.]** *Tidsskrift for danske Sygehuse*, København, 1979, March, vol. 55, no. 3, pp. 36, 37.

Linoleum is a natural product based on boiled, stablized linseed oil, the most usual type nowadays being marble patterned 2, 2.5 or 3.2 mm thick. It is usually supplied ready waxed. Single-colour linoleum is supplied unwaxed in the same thicknesses, for furnishings and fittings. In addition, cork linoleum is supplied coloured for floor coverings in therapeutic and sports facilities (3.3, 4.5 or 6 mm thick) and as a granulated cork bulletin board 3.2 or 6 mm thick only. Linoleum is non-flammable, highly resistant to damage because of its self-oxiding surface, and has a lifteime of up to 20 years. A linoleum floor needs occasional polishing—as does a vinyl floor—and is easily damaged by alkaline cleaning agents or organic solvents. If more elasticity is required in a floor, the linoleum can be laid with a cork backing. Linoleum has antibacterial, and when properly maintained, antistatic electric properties. It is possible to seal the joints to prevent penetration of dust and water.

LIFTING DEVICES, HOISTS

See Abstract No. 1637

EQUIPMENT GENERALLY

1578. BEHNEY, C. and BANTA, D. **Is medical technology safe?** *Hospitals*, Chicago, 1979, June, vol. 53, no. 11, pp. 110-112.

The 1970s have been the most technology-intensive decade in history, yet have also been a time of increased scepticism about technology's benefits and concern about its risks. The confusion exists in nearly every sphere of activity, including the hospital. This paper discusses some of the features of this problem and concludes that too little is known about the efficacy and safety, and the appropriate indications for use of many of the medical technologies. Increasing attention is being paid to this information. The success of these efforts will depend not only on the scientific and policy skills of those who generate information, but also on the willingness and ability of those who use it. Hospital administrators are principal members of both groups.

MEDICAL EQUIPMENT

See also Abstract No. 1635

1579. BOSTRÖM, U. Underhåll av medicinteknisk utrustning. **[Maintenance of medico-technical equipment.]** *Sjukhuset*, Göteborg, 1979, vol. 56, no. 3, pp. 163-166.

The author is engineer-in-charge of the medico-technical department of Linköping Regional Hospital. This post is responsible for the maintenance of all medico-technical equipment. The extent of maintenance to be carried out is governed by the purchasing decisions taken. Apparatus must be ergonomically designed, robust, easy to check and easy to repair. The manufacturer must supply reliable fault-finding equipment, spare parts and technical assistance. In budgetting for buying, the expected lifetime of the equipment must also be taken into account, and a system must exist for checking whether apparatus supplied corresponds to specifications. The armed forces reckon on an annual maintenance cost level of six to eight per cent of the purchasing price; in the hospital service, maintenance can easily cost from six to twelve per cent of the price. Four out of five faults that arise can be cleared by trained internal staff, at a vast saving in time and money, although the company technician has the advantage of familiarity with the equipment. Money invested in preventive maintenance is always well spent, special attention being paid to aids to the handicapped.

STAFF GENERALLY

1580. WIDERØE, J. Utvikling av personalsystem for sykehussektoren. **[Development of an electronic data processing personnel administration system for the hospital sector.]** *Norsk Sykehustidende*, Oslo, 1979, vol. 52, no. 3, pp. 14, 16.

Pay represents 70 per cent of the cost of the hospital service, and there is a high staff turnover. A data-terminal computer system for personnel administration for the counties of Vestfold, Telemark, Aust-Agder and Buskerud is being developed. The following information was required: (i) details of budgetted posts per ward and type of post; (ii) a review of who is in what post for how many hours a week; (iii) details of

absenteeism (sickness, holidays etc.); and (iv) lists of who is substituting for whom and where in the system. Details of individual employees can be retrieved for display on data terminals on the basis of the relevant person's name, national registration number, staff number or office at which he is paid. Absence data, to be computed daily, will make it possible to see: (i) who is absent from which post, why, and for how long; (ii) the individual employee's absence statistics for the last 18 months; (iii) substitution statistics; and (iv) statistics of time off given in lieu of overtime. The system uses telephone lines from the users' data terminal to the Centre's IBM 3032 computer. Later in 1979 the Centre will introduce routines for searching pay records for annual cumulative salary statements, and for recording variable pay and deductions data, including daily registration of sums paid per hour.

STAFF COMPLEMENTS

See also Abstracts Nos. 1589, 1594

1581. BLUMENSTOCK, J. Personalbedarfsberechnungsverfahren (PBBV) Patientenbehandlung mit der Stoppuhr? **[The procedure for calculating staff complements: patient treatment with a stopwatch?]** *Deutsche Krankenpflege-Zeitschrift*, Stuttgart, 1979, Aug., vol. 32, no. 8, pp. 398-400.

This is a critical appraisal of a series of studies carried out in 36 hospitals in Berlin, Bremen, Baden-Württemberg, North Rhine/Westphalia, Rhineland Palatinate and Schleswig-Holstein with the aim of developing standards for staffing requirements. The investigation consisted of interviews, studies of work procedures, time studies and frequency studies. The conclusion is that such studies, and their results, should be rejected. Hospitals are individual entities and differ greatly from one another in a great many ways. An analysis of the existing situation is no basis for determining standards for future staffing needs. What is needed is a model developed in close collaboration with medical, nursing, physiotherapy and other staff.

RECRUITMENT AND MANPOWER

See Abstract Nos. 1596, 1655, 1663

STAFF MANAGEMENT

See Abstract Nos. 1597, 1655, 1663, 1690

STAFF TRAINING

See Abstract Nos. 1582, 1587, 1692

STAFF WELFARE

See Abstract Nos. 1592, 1670

SPECIAL CLASSES OF STAFF

ADMINISTRATIVE AND CLERICAL STAFF

See also Abstract No. 1636

1582. PANTALL, J. **The training and development of young administrators—an independent view.** *Hospital and Health Services Review*, London, 1979, July, vol. 75, no. 7, pp. 241-245.

The author describes the National Training Scheme established in 1956 for the training of health service administrators and discusses alternatives for the future. In 1962 a regional training scheme was set up and in 1967 the two schemes combined under the National Staff Committee, and in 1974 came under the regional personnel departments of the Department of Health. The length of the course is now being criticized and a 10-month course consisting of the following three components has been suggested: (i) a clinical and care services attachment (as in the present course, but reduced to four months); (ii) introduction to administrative and managerial services (six weeks); and (iii) administrative skills attachment (as before, but reduced to three months). Another alternative is based on the assumption that management is a continuing process of development. Development programmes should, therefore, be provided on a regional basis for young administrators at all levels of employment. The present clinical and care services attachment should be maintained in any development scheme at trainee level. As the National Health Service has failed to keep abreast of good practice in management development, the present review of the National Training Scheme offers opportunities for a new approach.

MEDICAL STAFF

1583. BÉRAUD, C., JOLLY, D. and PORTOS, J.-L. Adéquation du personnel médical aux structures hospitalières de l'avenir. **[Adjustment of medical staff to the hospital structures of the future.]** *Cahiers de Sociologie et de Démographie Médicales*, Paris, 1979, Jan./March, vol. 19, no. 1, pp. 13-16.

This is a general discussion of the problems of staffing in French university hospitals. Too many posts are created in an arbitrary fashion and students select their speciality without regard to future overall needs. Over-specialization is leading to the closure of some internal medicine or general surgery units. Too many out-patient clinics are run by young interns instead of by the consultant. Teaching is often poor or neglected; some hospitals lack sufficient full-time medical staff. The authors would like to see a study of the hospital's objectives, more careful planning of facilities and staffing as a function of the current and future care requirements of the population, and greater co-operation between the different hospitals in a region. The public hospital should be run as a commercial enterprise, with marketing studies and the precise roles of the general practitioner and of each specialist clearly defined. The participation of medical staff in administration and management must be taken into account and paid for. Norms for the number of hospital doctors required to teach students and treat patients should be established on a national scale and a high-level committee should then determine the ideal administrative structure for each of the main French university hospitals.

1584. WETZELS, E. Einfluss des medizinischen Leistungsspektrums auf Struktur und Organisation des Arztdienstes. **[The influence of the range of medical performance on the structure and organization of the medical service.]** *Krankenhaus-Umschau*, Kulmbach, 1979, June, vol. 48, no. 6, pp. 467-471.

The author discusses the structure and organization of hospital medical services in Western Germany in relation to the range of services provided by the different categories of hospital. These categories are: basic and 'normal' hospitals which only offer facilities for the main specialties; central hospitals, normally with more than 70 beds and covering all clinical disciplines; 'maximum care' hospitals, teaching hospitals; and specialist hospitals. Aspects covered include general practitioner care of in-patients and the medical staff hierarchy. Hard and fast staff structures, based on the number of beds, have no place: each hospital has its own special characteristics which need to be taken into account.

1585. LØNNUM, A. and VALLA, L. Rasjonalisering av den medisinske virksomhet i sykehusene. **[Rationalization of medical work in hospitals.]** *Norsk Sykehustidende*, Oslo, 1979, vol. 52, no. 4, pp. 2-3.

The increase in the number of hospital beds in Norway of 2,500 a year since 1969, and the increase in health service staff from 25,000 in 1965 to 55,000 in 1976, has resulted in an annual health service cost of n.kr. 15,000 million of which n.kr. 11,300 million is spent inside the health institutions. The only place where economies can be effected is on the staff side, particularly those associated with the purely medical activities of the hospital service. Expenditure is divided between 72 per cent on salaries, four per cent on medicines, three per cent on consumer goods, nine per cent on amortization, six per cent on food and equipment, five per cent on outside services and one per cent on administration. Staff costs are distributed between: wards (30 per cent); out-patients and ward administration (25 per cent); laboratories (16 per cent); therapeutic and intensive care departments (16 per cent); and administrative and technical services (13 per cent). The authors consider that staff and public must be convinced of the need for rationalization.

NURSING STAFF

See also Abstract Nos. 1570, 1627, 1638, 1648, 1688, 1692

1586. GIOVANNETTI, P. **Understanding patient classification systems.** *Journal of Nursing Administration*, Wakefield, Mass., 1979, Feb., vol. 9, no. 2, pp. 4-9.

Over the past 15 years in-patient classification systems have received attention for the primary purpose of planning nurse staffing. The present demand for such systems suggests their importance and value, but there is still a long way to go in making them generally available. This review of the present situation covers: development in nursing; critical indicators of care; quantification of patient care; reliability and validity; and relationship to quality of care. It is concluded that patient classification systems, when developed and used appropriately, can be an important aid to the effective determination and allocation of nursing resources, in both the short and long-term. Imperfect as they may be in determining the true needs of patients, they do, when used appropriately, provide a rational approach to the problem of nurse staffing.

1587. MOORES, B. **The cost and effectiveness of nurse education.** *Nursing Times*, London, 1979, June 21, vol. 75, no. 25, occasional papers, pp. 65-68; June 28, vol. 75, no. 25, occasional papers, pp. 71-72.

The cost of training a nurse is high and as she progresses from first year student to registration the cost increases. The author calculates what it would cost the health service to replace the work of nurses at each stage of training; and compares this with the cost of the student herself, allowing for the fact that: (i) the student nurse is not available for service for all the weeks of her three-year training; and (ii) her effective contribution increases as she approaches qualification. Apart from the money made available for training by the General Nursing Council, costs will be incurred by the hospital at which the trainee is based. These costs include the time spent by qualified staff in teaching the trainees in their charge. The author concludes that the nurse is no longer a cheap source of labour. It is, therefore, important that training programmes fulfil certain criteria. The standard of training a nurse receives is to some extent dependent upon the prevailing work load and not all hospitals produce a trainee allocation programme which strikes a reasonable balance between service and training needs. Some kind of audit system needs to be developed to monitor the cost and effectiveness of various schemes of nurse education.

1588. SCHEMMEL, B. Die Organisation der Intensivmedizin—aus pflegerischer Sicht. **[The organization of intensive medicine from the nurse's viewpoint.]** *Deutsche Krankenpflege-Zeitschrift*, Stuttgart, 1979, Aug., vol. 32, no. 8, pp. 388-390.

The nursing service in an intensive care unit has the following four main objectives: (i) constant and optimal monitoring and care of patients 24 hours a day without excessive demands on the nursing staff; (ii) the best possible standard of in-service training of nursing staff; (iii) preparation and maintenance of specialist materials; and (iv) supervision and guidance of ancillary staff, including cleaners. Each of these four aspects is dealt with in turn.

1589. MOORES, B. and MOULT, A. **The relationship between the level of nurse staffing and the patterns of patient care and staff activity.** *Journal of Advanced Nursing*, Oxford, 1979, May, vol. 4, no. 3, pp. 299-306.

Data relating to nursing activities and the interactions between patients and staff were obtained during several one-week observation periods on a total of 20 wards in three hospitals. The data revealed that there is a strong relationship between the nursing hours available and the various types of nursing care provided. The findings illustrate how difficult it is to determine the ideal number of nursing staff in a particular ward at any given time. It was not clear whether a greater amount of time spent in giving nursing care meant that: (i) more nurse/patient interactions were taking place; or (ii) each interaction was longer. It is hoped that a further analysis of the data will clarify this point and give a more exact picture of the situation in different types of wards.

1590. COX, C. A. **Who cares? nursing and sociology: the development of a symbiotic relationship.** *Journal of Advanced Nursing*, Oxford, 1979, May, vol. 4, no. 3, pp. 237-252.

The paper aims to show how sociology can contribute to good patient care and also

how nursing can contribute to sociology. Four examples of the ways in which sociology can be relevant to nursing are discussed: (i) social and cultural variations in perception of, and responses to, disease and pain; (ii) implications for nursing of changing patterns of disease, dependency and death; (iii) organizational analysis, including nurse-patient communication; and (iv) sociology of inter-personal relationships, illustrated by a study of student nurse training. Nursing itself is a fertile field for sociological investigation and nursing education should include some sociology.

1591. LARSEN, T. Hvordan kan sykepleietjenesten med de personellmessige ressuser, som står til rådighet, organiseres slik, at standarden opprettholdes, samtidig som man holder tritt med den medisinske utvikling? **[How can the nurse's service, with the personnel resources at its disposal, be organized in such a way that standards are maintained, and yet keep up with medical developments?]** *Sykehuset*, Oslo, 1979, vol. 42, no. 3, pp. 155-210; English title, translation and summary, pp. 210-213.

This study is based on work at Odense Hospital. Nursing resources can only be utilized optimally if the established need for care is covered with the least possible number of nursing hours. An analysis must be made of service bottle-necks and of fluctuations in numbers of patients, with time and staff allocated accordingly. Measures to streamline hospital nursing services include: (i) a common nursing supply pool to cover acute admissions, and staff absences; (ii) statistically graduated patient care; (iii) visual planning aids to co-ordinate the movements of patients; and (iv) medical co-ordinators. Annual budgets must be based partly on the previous year's expenditure and partly on expected increases or curtailments in services. Departments should supply periodical (monthly or quarterly) nursing statistics, to allow use of hospital resources to be traced and regulated. There are 23 references (one English) and six appendices showing forms and tabulations produced for this exercise.

1592. STUBBE, H. Psychologische Untersuchungen an Kinderkrankenpflege-schülerinnen. **[Psychological studies on student children's nurses.]** *Deutsche Krankenpflege-Zeitschrift*, Stuttgart, 1979, July, vol. 32, no. 7, pp. 394-396.

In order to determine their psychological background 21 second year student children's nurses aged between 19 and 23 were subjected to questioning and tests. As regards biography, environment and personality results were found to be within the normal range. On attitudes to pregnancy, sexuality and birth results were again within the range of the normal, except that there was an affirmative and uninhibited attitude on sexuality. On motivation and choice of profession 11 of the 21 felt themselves to have been chosen for, or felt themselves called to, the profession of children's nurse; 13 considered that children's nursing required a quite definite talent and that they had chosen it because they felt they had that talent. Only two students had decided to adopt the profession independently of careers advice. The conclusion is that this group of students were, psychologically, particularly healthy but that the small sample does not warrant any general conclusions.

1593. ABERMETH, H.-D. Krankenpflege heute- Entwicklungen und Möglichkeiten. **[Nursing today: developments and possibilities.]** *Deutsche Krankenpflege-Zeitschrift*, Stuttgart, 1979, July, vol. 32, no. 7, pp. 366-371.

The aim of the nursing profession today is 'total nursing care' with its three

components: healing the sick and helping the convalescent to remain healthy; helping the chronic sick to maximum independence and to a purposeful life; and supporting the dying and caring for their dependents. There is at present a gulf between theory and practice but a process of development is under way which, although arduous, is full of promise. Concrete and practicable solutions must be worked out, tested and put into practice which will enable 'total nursing care' to become a reality.

1594. NORTH WEST THAMES REGIONAL HEALTH AUTHORITY. NURSING DEPARTMENT and STATISTICS AND HEALTH INFORMATION SECTION. **A quantitative approach to the assessment of hospital nursing staffing requirements.** London, North West Thames Regional Health Authority, Nursing Department and Statistics and Health Information Section, 1979, [ii], 15pp.

This paper attempts to estimate the numbers of nurses needed for hospitals, districts and areas, based on the experience of the North West Thames Regional Health Authority. Subjective estimates and work study methods both raise problems. The technique used by North West Thames was taken from a methodology previously used by Trent Regional Health Authority. Various quantifiable factors, such as beds and discharges, were used in order to provide a quick but objective method of estimating nursing requirements.

1595. SCHELLENBERG, M. and HOFER, M. **Nursing in Switzerland.** *International Journal of Nursing Studies*, Oxford, 1979, vol. 16, no. 2, pp. 199-203.

As in many other countries, nursing and the nursing profession in Switzerland have passed through great changes in the last two decades. These have included: doubling of the number of nursing staff between 1960 and 1975; establishment of a one-year training course for nursing auxiliaries, an 18-month to two-year course on practical nursing for chronic patients, and a four-year training course based on pedagogical principles; and the introduction of new nursing concepts such as team nursing. The introduction of new concepts and ideas is made difficult by the present management structure. To overcome this, nurses must acquire knowledge of modern organization theory and become more aware of the nursing process.

1596. SCOTT WRIGHT, M., GILMORE, M. and TIERNEY, A. **The nurse/graduate in nursing: preliminary findings of a follow-up study of former students of the University of Edinburgh degree/nursing programme.** *International Journal of Nursing Studies*, Oxford, 1979, vol. 16, no. 2, pp. 205-214.

A follow-up study of former students of the University of Edinburgh 4½-year integrated degree/nursing programme was initiated in 1969. The programme leads to a social science degree, registration as a general nurse, and certification as a district nurse. Former students were asked to complete a follow-up postal questionnaire at intervals of six months for the first year and thereafter at yearly intervals. Findings are presented for the first six student groups together, for the subsequent five groups together, and for all groups of former students together at the most recent times of follow-up. Some data are also presented concerning employment by type of nursing post, country of

employment, and former students not in nursing posts. Although it is too early to draw firm conclusions, some trends can be discerned: (i) the nurse/graduates do select careers in nursing; (ii) they do select nursing posts in clinical nursing; and (iii) the study demonstrates a relatively small loss to nursing.

1597. BESWETHERICK, M. **Staffing assignment: a review of past and current systems of nursing care delivery.** *Canadian Nurse*, Ottawa, 1979, May, vol. 75, no. 5, pp. 18-22.

The author reviews systems of nursing care delivery from the functional method of the early 1930's to the present day concept of primary nursing. The functional method focussed upon tasks and duties, within a hierarchy of status and competence. The late 1940's saw a move towards group nursing assignment with a single nurse providing care to a small patient group. In the late 1950's and early 1960's the idea of total patient care emerged and greater stress was placed on the nurse's planning and teaching functions. From this developed progressive patient care, which aimed to match patient needs to an appropriate level of staff and technical resources. The unit assignment method was a further refinement of this aim, often using a team of nurses. Primary nursing was introduced into Minnesota in 1968. The system consists of individual care provided by one nurse who is responsible for all facets of the nursing process. The search for a method of delivering care which is both economic and efficient will doubtless continue.

ORGANIZATION AND ADMINISTRATION

See also Abstract Nos. 1583, 1584, 1591, 1674

1598. ØIE, J. and BOLLINGMO, M. Finnes det alternative modeller i sykehus-administrasjon? **[Do alternative hospital administration systems exist?]** *Norsk Sykehustidende*, Oslo, 1979, vol. 52, no. 4, pp. 4-6, 8.

Shortage of money is forcing the hospital service to dictate a strict order of priorities internally, in planning, use of resources and assessment of methods of operation. The crisis lies not in the hospitals but in the public's expectations, which are almost limitless. At the same time the professional qualifications and standards of staff are unprecedentedly high, and their demands for democratization and an improved working environment have increased accordingly. Alternative methods of management comprise an increased number of professionals in central administration or increased professional financial responsibility delegated to individual departments. The latter is the preferred solution in Norway, against the trend in America. On the other hand American analyses prove that when professional staff are given the opportunity of directing their own activities, the results are both satisfactory and cheap. To be able to administer itself, a department must have full powers of administration over its own financial resources, its own budget and its own accounts. This requires a high degree of team responsibility whereby the head of department (and deputy) direct their 'concern' in co-operation with the department's established nursing staff. The article presents two leadership models, the traditional hierarchial and the modern team.

1599. ELLIS, B. **Planning system has corporate overview.** *Hospitals*, Chicago, 1979, June, vol. 53, no. 11, pp. 145-146, 148, 150.

The Clarkson Memorial Hospital in Omaha, Nebr., has attempted to formulate a system that allows thorough consultation and consideration for all management decisions. Each year every manager and supervisor draws up a 'charter plan' which includes objectives and resources needed to obtain those objectives. Where necessary action plans are drawn up along set lines to implement a new objective. Relevant staff from other departments will always be consulted, and consideration of the broader implications of plans is automatic. The concept of structural planning includes the medical staff who are asked to estimate their requirements for three years ahead and are given comparisons between their previous projections and actual requirements.

ECONOMICS OF HOSPITAL MANAGEMENT

See also Abstract Nos. 1562, 1568, 1585, 1615, 1616, 1618, 1620, 1621, 1678, 1684

1600. JEFFRIES, J. and TESTOLIN, K. **Reduce energy cost up to 35% by following these simple steps!** *Hospital Topics*, Sarasota, Fla., 1979, May/June, vol. 57, no. 3, pp. 44-48.

Memorial Hospital Medical Center of Long Beach, Calif., has 850 beds, encompasses 28 acres with its buildings totalling 750,000 square feet, and employs 2,600 people. This paper describes briefly the steps taken to save electricity, gas and water which reduced energy costs by some 35 per cent. The steps included: installation of photo cells on car park lighting to switch it off at dawn and on at dusk; clock timers on air handling units in the business office and family practice building; removal of unnecessary lights; shutting down air handling motors in the receiving area during cooler seasons; standby controls on X-ray film processors; shutting down two hot water pumps without affecting output or quality; better scheduling for the use of three chiller units; flow restrictors on sinks and toilet flush valves; push-button taps producing a timed water flow; flow valves on shower heads; installation of a circulation pump and heat exchanger on a gas sterilizer; chemical treatment of cooling tower condenser water; installation of automatic blowdown valves on boilers; and recalibration of air handling equipment. An energy management computer has now been installed to control electrically powered apparatus throughout the hospital.

1601. EICHHORN, S. Ansatzpunkte und Methoden zur Beuteilung der Leistungsfähigkeit der Krankenhausversorgung. **[Assessing efficiency in hospital administration.]** *Krankenhaus-Umschau*, Kulmbach, 1979, June, vol. 48, no. 6, pp. 459-464.

Efficiency in this context is defined as the satisfactory achievement of medical and nursing goals having regard to the means at the hospital's disposal. Efficiency can be assessed in relation to results, procedures and resources. In making this assessment there are three points to be borne in mind: (i) all senior staff must be aware of the differing functions of the individual sections of the hospital, and management staff should have proper training to this end; (ii) investigation is needed into whether current

concepts of economic accounting are practicable for hospitals, or whether additional criteria are needed to indicate efficiency; and (iii) responsible authorities should pay more attention to the contribution of hospital efficiency to health: accounting, balance sheets and costing alone are not sufficient.

1602. GERDELMAN, W. Möglichkeiten und Grenzen des Krankenhaus-Betriebsvergleichs der Spitzenverbände der gesetzlichen Krankenkassen. **[Possibilities and limitations of hospital management comparisons carried out by the central statutory health insurance organizations.]** *Krankenhaus-Umschau*, Kulmbach, 1979, July, vol. 48, no. 7, pp. 563-565.

The hospital comparisons prepared by the central statutory health insurance organizations of Western Germany which were started in 1974 have been continually developed and extended. The system is described in this paper under the following heads: evaluating cost accounting data; categorizing hospitals; cost comparisons; extending management comparisons; classification of diseases; evaluating disease types; and additional evaluations (including length of stay statistics). The data collections are intended to be pre-eminently of practical use. The scope of the data is limited by the resources needed to carry out the heavy work involved. Hospitals and health insurance organizations should work out a common system for hospital comparisons: this would make the task easier and reduce the need to check for errors.

1603. RÖTHENMUND, E. Möglichkeiten und Grenzen des Betriebsvergleiches: ein Erfahrungsbericht aus der Schweiz. **[Possibilities and limitations of management comparisons: experience in Switzerland.]** *Krankenhaus-Umschau*, Kulmbach, 1979, July, vol. 48, no. 7, pp. 558-562.

Two methods of comparing the efficiency of hospitals, based on a cost accounting system, are described and illustrated by examples. The first method is a comparison based on the average values for all hospitals in the same category. The second method involves a comparison between two or more individual hospitals. This latter is considered to be of much greater importance as a management tool than the system using an average for all hospitals.

1604. BOAZ, R. F. **Utilization review and containment of hospital utilization: some implications of providing care in the 'most appropriate setting'.** *Medical Care*, Philadelphia, Pa., 1979, April, vol. 17, no. 4, pp. 315-330.

This study examines the potential for savings in the use of hospital resources if utilization review policies succeeded in curtailing excessive use—that is use of hospital care when ambulatory care is medically feasible and acceptable. A utilization review policy would be expected to ensure that all patients with identical medical problems would be treated in an identical cost setting regardless of their non-medical or socio-economic characteristics. Specifically, the study distinguishes between two types of utilization control—pre-admission certification and concurrent or continuing stay review. It concludes that continuing stay review is not likely to have any appreciable effect on reducing length of stay because the effects of non-medical factors on extended stays are small and concentrated among patients whose diagnosis might not qualify them for hospital under a pre-admission screen. However, pre-admission certification

has a considerable potential for containment of hospital use through the reduction of admissions. Also, as a corollary, the study shows that utilization review policies should not be evaluated, as they often are, in terms of their effect on length of stay, but rather in terms of their effect on hospital admissions and case mix.

RUNNING COSTS

See Abstract No. 1562

BED OCCUPANCY, ECONOMIC USE OF BEDS

See also Abstract Nos. 1607, 1660, 1685

1605. BURLEY, L. E. and others. **Contribution from geriatric medicine within acute medical wards.** *British Medical Journal*, London, 1979, July 14, vol. ii, pp. 90-92.

Geriatric patients can often block beds in acute medical wards which are not used to meeting their problems. In this study an Edinburgh teaching hospital attached consultant geriatricians to six medical wards. Length of stay was reduced, particularly for women over 65 and more patients were discharged home rather than to convalescent wards.

EMERGENCY ADMISSION, EMERGENCY BED SERVICES

See Abstract No. 1669

APPOINTMENT SYSTEMS, WAITING LISTS

See also Abstract Nos. 1641, 1683, 1695

1606. ROURKE, T. A. and others. **Computer-assisted scheduling of elective admissions.** *Methods of Information in Medicine*, Stuttgart, 1979, July, vol. 18, no. 3, pp. 146-151.

The computer-assisted waiting list management system in the urology department of the Royal Infirmary, Aberdeen, includes waiting list, allocated resources, and ordering components. It was therefore suitable for the addition of the date calculation component described in this paper. The new component was designed largely to imitate the former manual scheduling system used by the clinician who selected patients from the ordered list according to the resources available. Results were obtained by observing the behaviour of the system over periods of six months before and after extension, and by running the extended system as part of a simulation model. It is shown that the relatively simple computer scheduling process can be used to replace satisfactorily a substantial part of the former manual scheduling, and that the quality of data present in the waiting list system prior to extension was adequate to support the new process. The extension provides significant savings of clinicians' time with negligible increase in running costs.

1607. FUHS, P. A., MARTIN, J. B. and HANCOCK, W. M. **The use of length of stay distributions to predict hospital discharges.** *Medical Care*, Philadelphia, Pa., 1979, April, vol. 17, no. 4, pp. 355-368.

The primary objective of most admissions scheduling systems is to reduce the variation in the daily patient census, thus enabling average bed occupancy to be increased. Many admission scheduling systems rely on estimates of future discharges to achieve this objective. One of the two most frequently reported methods of estimating discharges attempts to explain the variance in historical length of stay (LOS) data. This paper explores the relationship between LOS variance explanation and the ability to predict discharges. It concludes that even a large improvement in the ability to explain LOS variance will only marginally reduce the errors in the associated discharge predictions.

OFFICE MANAGEMENT AND METHODS

See Abstract No. 1575

ELECTRONIC DATA PROCESSING

See also Abstract Nos. 1580, 1606, 1613, 1619, 1623, 1659, 1665, 1687

1608. BARBER, B. and SCHOLES, M. **Learning to live with computers.** *Nursing Mirror*, Sutton, 1979, July 5, vol. 149, no. 1, pp. 22-24.

Medical computing is divided into several specialties. Besides the many scientific applications, routine financial applications as aids to planning are continually being developed. Statistical systems linked to terminals in different hospitals can provide information on hospital use in a certain area. Nurses are becoming increasingly involved in the design and use of hospital and community computers, including systems for use with family practitioner indexes, the most notable being the Exeter Community Health Project. On the hospital side, a number of systems have been developed by the Department of Health Experimental Computer Programme, including those at four London teaching hospitals. These systems provide standard applications such as waiting lists, admissions and discharges; with other applications, such as drug administration, varying from one hospital to another. Applications in nursing of computers include studies of staff sickness and absence, and attempts to simplify the process of staff allocation. Computer systems can also help to monitor nursing care and should be designed to account for the latest developments in nursing practice and education. Attention must be paid to user education, and the training scheme at the London Hospital is described.

1609. KLEIVAN, D. and ØVSTEDAL, E. Ø. Revisjon av det økonomiske og medisinske informasjonssystemet—ØMI II. **[Revision of the economic and medical information system—ØMI II.]** *Norsk Sykehustidende*, Oslo, 1979, vol. 52, no. 4, pp. 10, 12.

The present Financial and Medical Information System, ØMI I, is to be brought

up to date and superseded on 1 January 1980 by ØMI II. In order to facilitate the change-over, the amount of extra data to be recorded on the new registration forms will be highly limited. ØMI I is only in use in some local authority areas. Efforts will be made to include all hospitals and nursing homes in Norway in the ØMI II system, permitting: (i) inter-institutional comparisons and analyses of population morbidity; (ii) rationalization of waiting lists; and (iii) channelling of planning and administration information to hospital management authorities. Since ØMI II can be used by all categories and sizes of institution, it will provide greater flexibility in registration, updating and retrieval of data, processing of medical data, and co-ordination with existing large-scale systems. The main areas of data storage will comprise: (i) data transferred from accounts, salaries and staff records systems plus planning figures from the long-term budget statistics; (ii) summaries of auxiliary medical services' activities (laboratories and X-ray); (iii) summaries of resource data (staff and bed availability); and (iv) patient data, both administrative and medical. The local authorities' Data Centres have been given the responsibility for advising senior administrative staff on the implications and uses of the system and training operators, including publishing a users' handbook and running courses.

1610. Fox, J. **Development of hospital computing.** *Journal of the Royal Society of Medicine*, London, 1979, June, vol. 72, no. 6, pp. 425-431.

The emphasis in medical computing has been on the solution of difficult technical problems. A policy for the development of hospital applications that emphasizes the needs of doctors and patients is now required. Desirable features of such a policy include: (i) computer resources should be matched with existing spheres of responsibility; (ii) clarification of working relationships between clinician and computing resource; (iii) the use of 'responsibility' must be clarified; (iv) emphasis on need to incorporate patient needs and values into decision-making procedures; (v) greater recognition of possible effects on doctor-patient relationship; and (vi) precautionary measures to prevent 'deskilling' by computer.

1611. Campet, M. and Courrejou, C. Le système de traitement de l'information des hôpitaux 'Fontenoy' ou le système 'Fontenoy Informatique'. **[The information processing system for the Fontenoy hospitals; the 'Fontenoy Informatique' system.]** *Revue Hospitalière de France*, Paris, 1979, June/July, vol. 43, no. 322, pp. 583-596, 599-605.

Tarbes General Hospital, one of the first four 'Fontenoy'-type hospitals, will be the first to employ the Fontenoy data processing system, which is divided into three subsystems: management; laboratories; and pharmacy. The latter is a system of daily individual distribution of drugs, checked by computer, in unit doses packed in the hospital. The hardware in the computer centre comprises: four Mitra 125 computers, disc and tape; a printer; card readers; and an optical reader. In addition, there are 25 video terminals with keyboards, 14 printers, and other equipment in the administrative block, the laboratories, and the pharmacy. A series of 13 large, clear diagrams is used to help us follow the progress of an in-patient through the hospital and see the workings of the data processing system.

ORGANIZATION AND METHODS, WORK STUDY

1612. DEEGAN, A. X. **Management by objectives for hospitals.** Germantown, Md., Aspen Systems Corporation, 1977, vii, 229pp. £12.10

In the United States hospitals constitute the country's third largest industry yet little attempt is made to learn from industrial practice. This book, however, attempts to state the case for management by objectives, a tool long used by government and industry, in hospital terminology and using hospital examples. The book is written in dialogue form, with each chapter as a study unit. At various points spaces are provided for the reader to answer questions or work out his own example. Most of the references are American.

MEDICAL RECORDS

See also Abstract No. 1665

1613. CERUTTI, S., LONGHINI, E. and PINCIROLI, F. **A computer-oriented approach to the comprehensive organization of information in hand-compiled medical records.** *Methods of Information in Medicine*, Stuttgart, 1979, July, vol. 18, no. 3, pp. 138-145.

Probably one of the main causes of lack of success in the computerization of medical records is that implementation programmes seem to be oriented towards the needs of the organization rather than the needs of medicine. Prior to the actual introduction of a computer, it is extremely important to create a more rational structure for the entire medical record independent of any automatic processing anticipated, to measure its degree of acceptance by physicians, to evaluate whether the new structure has significantly improved overall medical care, and finally to introduce the use of a computer after a period of experimentation. The results of over two years of practical experience on these lines in the general medicine department of a regional hospital in Italy are presented. The new medical record which has been designed is described. Physician acceptance was high.

HOSPITAL STATISTICS

See also Abstract Nos. 1609, 1664

1614. DELONOÉ, J.-Y. Les grandes orientations de la statistique hospitalière période 1980-1985. **[The framework for hospital statistics during the period 1980-1985.]** *Revue Hospitalière*, Paris, 1979, June/July, vol. 43, no. 322, pp. 555-557, 560-574.

A brief outline of the changes envisaged in the annual statistics on public hospitals in 1980-1985. Sampling techniques will be used to obtain summary indications on trends in the main variables in the health system (facilities, activity, staffing, etc.) with results available within six months. Detailed and exhaustive information will be collected and published within one year and by 1981 every region will have computer facilities; it will then be possible to check and enter statistical information and produce regional tables. Standard definitions and classifications will be used throughout. These classifications for type of activity and discipline and the rules for their use are given in an annex to the paper. They will be used for the first time in a pilot study in Aquitaine in 1979.

FINANCE AND ACCOUNTING

COSTS

See also Abstract Nos. 1568, 1575, 1587, 1656, 1678

1615. VRACIU, R. A. and GRIFFITH, J. R. **Cost control challenge for hospitals.** *Health Care Management Review*, Germantown, Md., 1979, vol. 4, no. 2, pp. 63-70.

Cost containment on a national level in the United States is forcing hospital administrators to keep increases in spending within certain limits. Short term plans for immediate reductions might include such matters as deferrment of replacement of equipment and a cutback in educational programmes, but savings from these sources are short-lived and very variable. Reductions in labour costs are sometimes feasible and every hospital has some aspect of internal efficiency which could be improved. Most schemes aimed at cost saving will require some advance expenditure and time for planning. Variations in rates of admission and lengths of stay from one hospital to another suggest that hospital use might be reduced without lowering the standard of care. Reduction of services offered is another, but unpopular, means of cutting costs. A four to five year planning period is needed for implementing cost containment plans, so that increases in expenditure due to inflation may be weighed against the allowable total increase. Cost containment plans involving administrative improvements are likely to come before any decrease in patient services.

1616. GOFF, D. W. **A cost containment committee can help cut overall costs.** *Hospitals*, Chicago, Ill., 1979, May 16, vol. 53, no. 10, pp. 76-78.

Hospitals can only deal with pressures for cost containment if the board of directors is definitely committed to the concept of maximum use of resources, and its efforts to minimize costs and maximize outputs are properly organized. The experience of the University Hospital of Jacksonville has shown that considerable benefit can be derived from the latter approach. Its cost containment committee serves as the primary decision-making body in the preparation of the budget; the procedure followed is described. Only one-half of the money budgetted for a year is allocated for the first six months of the year; the situation is then re-evaluated and the finance for the second half of the year is allocated. A series of task forces has been established to tackle specific problems and stimulate cost-saving ideas.

1617. GEBERT, A. J. Ausländische Versuche zur Kostendämpfung im Gesundheitswesen—brauchbare Hinweise für die Schweiz? **[Attempts in other countries to reduce health service costs: pointers for Switzerland?]** *Veska*, Aarau, 1979, June, vol. 43, no. 6, pp. 327-331.

The author gives examples of what is being done in other countries (Britain, Western Germany, France, Belgium and the Netherlands) in an attempt to control the rising costs of health services in general and the hospital service in particular. While admitting that what is valid in other countries will not necessarily apply in Switzerland he

nevertheless feels that there are lessons to be learned and that the methods and results in other countries could apply to some extent and are worthy of study.

1618. WEISBORD, M. R. and STOELWINDER, J. U. **Linking physicians, hospital management, cost containment and better medical care.** *Health Care Management Review*, Germantown, Md., 1979, vol. 4, no. 2, pp. 7-13.

Hospital costs have been rising steadily in the United States in recent years, without much evidence of improvement in outcome. Cost per patient per day may be divided into cost of: (i) patient care; (ii) support services; and (iii) administration. Physicians hold the key to all these areas because they make decisions regarding admission, discharge and treatment. Physician accountability to hospital administration is indirect compared with that of other staff because they remain largely outside the hospital structure. Cost containment, to be effective, must be the joint concern of professional and administrative staff and this will require some changes in hospital organization. A strategy aimed at making a significant reduction in costs without reducing quality of care must include: (i) a method of making physicians aware of the effect of their actions upon the hospital system; and (ii) attempts at joint problem solving. A few reports exist which show that participation by all types of staff in cost containment schemes can improve, not reduce, patient services.

1619. GRIMMELMAN, F. J. **Computerized cash management: the new frontier.** *Health Care Management Review*, Germantown, Md., 1979, vol. 4, no. 2, pp. 33-39.

A computerized method of cash management in operation at the Deaconess Hospital, Cleveland, is described. The system involves a calculation of future receipts of payment up to 30 days in advance using records of past receipts. Costs are divided into three categories: (i) variable costs; (ii) fixed costs; and (iii) payments to traders. Eighty per cent of costs are fixed and therefore predictable and payment of trade invoices are staggered, but always paid within 45 days. A consolidated disbursement schedule is produced on a monthly basis. The most valuable aspect of the computer model is its ability to simulate increases and decreases in demand for patient services, and the hospital management is kept informed of the financial situation daily. In addition to providing cash for operating, cash forecasts can be produced which ensure that: (i) costs and charges are matched; (ii) adequate funds for replacements and expansion are available; and (iii) borrowing needs are anticipated in advance.

HOSPITAL ACCOUNTING

See also Abstract Nos. 1603, 1619

1620. BÖLKE, G. Kostenrechnung als Führungsoder Kontrollinstrument. **[Cost accounting as an instrument of management and control.]** *Krankenhaus-Umschau*, Kulmbach, 1979, July, vol. 48, no. 7, pp. 551-552, 555-557.

The author discusses the various aspects and methods of cost accounting with special reference to their use as instruments of management. A distinction is drawn between what is called 'full cost accounting' and 'part cost accounting': the former is considered to be unsuitable and unjustifiable for hospital use. 'Part cost accounting' answers the

following questions: which types of costs have occurred; where (in which units) have they occurred; and to which hospital service are they to be charged?

1621. GROOT, L. M. J. Entscheidungsorientierte Kostenrechnung. **[Decision-oriented cost accounting.]** *Krankenhaus-Umschau*, Kulmbach, 1979, July, vol. 48, no. 7, pp. 547-550.

Decision-oriented cost accounting is defined as 'cost accounting which reveals the relationship between decisions and costs'. Three forms of cost accounting are distinguished: (i) cost accounting by type of cost (category accounting); (ii) cost accounting by department or area (organic or function accounting); and (iii) patient-related cost accounting (disease costing). Each is described and its relationship to decision-making discussed.

SUPPLIES AND STORES

PURCHASING

See Abstract No. 1624

ECONOMIC USE OF SUPPLIES, DISPOSABLES

1622. VALLA, L. Hvordan rasjonalisere kontrollen og godkjenningen av visse engangsartikler som brukes innen helsestellet? **[How are the checking and approval of disposables used in health establishments to be rationalized?]** *Norsk Sykehustidende*, Oslo, 1979, vol. 52, no. 4, p. 23.

This report of a seminar discusses the question of how it is possible to ensure that the standard and quality of disposables used in health service institutions is such as to make checks by the individual user unnecessary. The problem of widely varying quality can only be solved if rigid standards are required of any item permitted to be sold to the health service. For example, standards for disposable hypodermic syringes might comprise composition and strength of materials, graduation intervals, tolerance between piston and cylinder, method of construction, and packaging. Standards must not, however, be so rigid as to prohibit development of new products. The introduction is proposed of a seal of approval for items satisfying all the demands of a government inspection. The only opposition can be expected from manufacturers producing low price goods of poor quality; serious manufacturers can only welcome such a proposal.

CATERING, DIETETICS, KITCHENS

DIETETICS IN THE HOSPITAL

1623. SHICK, G. L. and others. **A computer-assisted personnel data system for a hospital department of dietetics.** *Journal of the American Dietetic Association*, Chicago, 1979, April, vol. 74, no. 4, pp. 448-458.

The first part of this paper describes the development of a data base for a computer-

assisted personnel data system for the department of nutrition and dietetics, at Missouri Columbia Medical Center. After studying the existing manual system, eight objectives for the data base were set and computer programs and files designed to achieve them. The programs were written using the Mark IV File Management System and all were tested for accuracy before implementation. The second part of the paper describes the use of the data to produce timely and accurate reports on staff costs. The project involved six reports considered to have the highest priority: (i) monthly report of unscheduled absenteeism; (ii) quarterly analysis of turnover; (iii) monthly analysis of staff costs; (iv) ledger of monthly staff costs; (v) seniority listing; and (vi) printed labels for time cards.

KITCHENS

1624. HARRIS, A. T. M. **Purchasing equipment for new hospital kitchens.** *Hospital and Health Services Purchasing*, London, 1979, May, pp. 138, 140.

Two important factors govern the choice of kitchen equipment: financial constraint and changes in eating habits. Brief advice is given on selecting equipment for baking, frying, steaming, boiling, service and dishwashing.

FOOD SERVICE

1625. RENZULLI, G. and RENZULLI, L. Aspetti igienico-sanitari nell' impiego di distributori automatici self-service per alimenti e bevande. **[Hygiene aspects of the introduction of an automated self-service system for food and drink.]** *Tecnica Ospedaliera*, Milano, 1979, July/Aug., vol. 9, nos. 7-8, pp. 36-41.

Advice is proferred on the design and maintenance of automatic vending machines for hot and cold drinks and snacks, of which there were 204,000 in Italy in 1977, mainly in offices and factories, but also (1.5 per cent) in hospitals. These machines should be designed in such a way as to protect the products from contamination and overheating. Materials should be non-toxic and resistant to corrosion; surfaces should be smooth and corners rounded. It is essential that they be cleaned and maintained regularly; machines supplying milk, cocoa or similar drinks should be cleaned every day, those for other liquids every 48 hours, and those for solids every 72 hours. Refuse containers should be provided so that insects and animals are not attracted to the site.

LAUNDRIES AND LINEN SERVICE

LAUNDRIES

See Abstract No. 1628

HOSPITAL LINEN AND TEXTILES

1626. BURTON, B. **Keeping the incontinent patient dry.** *Nursing Mirror*, Sutton, 1979, May 31, vol. 148, no. 22, pp. 25-26.

The absorbent Kylie Bed Sheet was tested at the Lidcombe Hospital, Sydney,

Australia, in a geriatric male ward where most of the patients were incontinent. The sheet is made up of two washable components: (i) a very absorbent 'soaker pad' of needled rayon on top of a waterproof sheet; and (ii) a hydrophobic brushed nylon 'drier' which permits the transfer of urine through to the soaker pad. The Kylie sheet was compared with the conventional draw-sheet for: (i) number of laundry items used; (ii) presence of odour; (iii) state of patients' skin; (iv) creasing of sheet; and (v) erythema of pressure areas. The Kylie sheet was more effective on all counts and the test established that it: (i) increased patient comfort; (ii) lessened the unpleasantness of nursing incontinent patients; (iii) reduced the daily laundry load; and (iv) made the purchase of disposable cellulose pads unnecessary.

1627. LLEWELYN, S. P. **A change for the better?** *Nursing Mirror*, Sutton, 1979, Aug. 16, vol. 149, no. 7, pp. 27-29.

Middlewood Hospital, a psychiatric hospital near Sheffield, was used for a survey of attitudes to uniforms amongst patients, nurses and visitors. A questionnaire was handed out on two occasions, first when staff were in uniform and on the second occasion after they had been wearing their own clothes for some time (although, in a few cases, staff refused to stop wearing uniforms). In the first survey only 30 per cent of patients, 20 per cent of visitors and 41 per cent of staff were in favour of nurses wearing their own clothes. After the change 81 per cent of patients, 64 per cent of visitors and 78 per cent of staff were in favour. Although the sample was small the change in opinions was quite marked on this question and a number of supplementary ones.

1628. SUMMERS, J. **Beyond dirty linen: linen use management as an innovative asset.** *Health Care Management Review*, Germantown, Md., 1979, vol. 4, no. 2, pp. 41-48.

An effective system of linen use management can: (i) decrease the amount of linen used and reduce replacement costs; (ii) provide information about linen management in all areas of the hospital; and (iii) reduce total hospital costs. By controlling misuse of linen, hospitals can reduce linen use to about 10 lbs. per patient day without any patients being short of linen. A report on the number of items used daily in each area of the hospital can identify areas of high and low usage and reasons can be sought for discrepancies. A linen use manager, through the data he provides, will be involved with the hospital organization as a whole and not merely with the supply of linen. Two sets of data described are the linen use recap and the linen use variance report. The control system described also ensures careful ordering and requires a change in costing from cost per lb. to cost per patient day. A cost-benefit analysis of the system is outlined, assuming a hospital with a 500 bed occupancy rate using 20 lbs. of linen per patient day. It appears to be a powerful tool for cost containment.

HYGIENE IN THE HOSPITAL

See also Abstract No. 1625

1629. GRÜN, L. Effektivität und Ineffektivität von Hygienemassnahmen. **[Effective and ineffective measures to promote hygiene.]** *Krankenhaus-Umschau*, Kulmbach, 1979, July, vol. 48, no. 7, pp. 566, 569.

Disinfection of operating theatres with formaldehyde is time-consuming, expensive

and unreliable and does not obviate the need for disinfection by damp-mopping. The efficacy of indirect ultraviolet radiation when air-conditioning is used is very doubtful. While there is no doubt that laminar airflow leads to a great reduction in air contamination with dust and micro-organisms, proof that it reduces the number of infections is lacking. Contaminated hands are still the most important transmitters of infection. There are a number of effective hand disinfectants; what is needed is the proper training of doctors and other staff in their use. Surface disinfection is sometimes overdone in such areas as entrance halls and offices; even in wards, except where septic patients are involved, its value is debatable. The structure of the hospital is important from the point of view of hygiene and patients, doctors and hygienists need the support of the architect. Hygiene is the art of the possible and should not be based on hypothetical extreme situations.

1630. Krankenhaushygiene. **[Hospital hygiene.]** *Zeitschrift für die gesamte Hygiene und ihre Grenzgebiete*, Berlin, 1979, May, vol. 25, no. 5, pp. 345-425.

The whole of this issue of the journal is devoted to hospital hygiene with special reference to its practice in Eastern European countries. The subjects covered include the following: the organization of hospital hygiene in Eastern Germany and in the USSR; hospital infection yesterday and today; the responsibilities of the medical officer for hygiene in hospitals, the equipment, organization and documentation of central sterile supply departments; standardizing the range of sterile goods; the hygiene of air-conditioning in operating theatres; bed disinfection; a new method of space disinfection; cleaning and disinfection of spirographs; microbiological examination of surfaces and the prevention of hospital infections; resistance of staphylococci to disinfectants; hygiene of intensive therapy units; *Clostridium* in the operating theatre; pest control in the hospital.

HOSPITAL INFECTIONS

See also Abstract No. 1671

1631. GOAD, D. M. **Superficial neonatal infection.** *Nursing Times*, London, 1979, June 7, vol. 75, no. 23, pp. 965-966.

Following an increase in *Staphylococcus aureus* infections in a maternity unit, changes were made in aseptic procedures concerned with cleaning the cord stump and with bathing. Three wards in the unit acted as a control group and continued the original routine. In the rest of the unit, chlorhexidine detergent and a chlorhexidine/zinc oxide cord powder were used. The control group numbered 178 babies and the trial group numbered 156. The chlorexidine régime resulted in earlier separation of the cord and, in 74 per cent of cases, a slightly earlier discharge from hospital. The reduction of superficial infection in the chlorhexidine group was also very significant.

1632. WHELAN, G., BREEN, K. J. and FRY, C. **Prevalence of hepatitis B in a general hospital: screening of patients and staff.** *Medical Journal of Australia*, Glebe, 1979, May 5, vol. i, no. 9, pp. 374-376, 401.

To provide a basis for a rational programme of hepatitis B prevention and control a Melbourne hospital conducted surveys of hepatitis B antigenaemia amongst in-patients

and staff of the intensive care, cardiothoracic, and haematology/oncology units. A single general survey was also made of all in-patients and some out-patients. An incidence of 1.55 per cent was found in the three selected units; whilst the general survey found an incidence of 0.9 per cent. The rate was highest amongst patients and staff from Asia and southern or eastern Europe.

1633. FROMM, G. Hygienisch-bakteriologische Untersuchungen kritischer Einheiten staatlicher Hamburger Krankenhäuser. **[Bacteriological examination of critical units of Hamburg state hospitals.]** *Öffentliche Gesundheitswesen*, Stuttgart, 1979, July, vol. 41, no. 7, pp. 419-425.

This is a report on studies carried out in 46 operating departments, two neonatal units, nine delivery rooms, nine nursery wards, 14 intensive care units, two dialysis units and one haematology department of Hamburg hospitals in order to determine the standard of hygiene and the rate of bacteriological contamination. The methods used in three studies are described and the results are set out in general terms under 11 different heads. Detailed reports were sent to all the hospitals concerned pointing out weaknesses and indicating where improvements should be made.

PREVENTION AND CONTROL

1634. VOGL, A. Hospitalismusbekämpfung mittels Konkurrenz der Keime. **[Competition between micro-organisms in the control of hospital infections.]** *Krankenhausarzt*, Karlsruhe, 1979, June, vol. 52, no. 6, pp. 523-524.

In spite of the stepping up of expensive control measures it seems that the incidence of hospital infections still continues to rise. Growing use of antibiotics has led to the development of resistant strains. While of course not suggesting that aseptic and antiseptic measures should be neglected the author suggests that advantage should be taken of the well-known 'competition' between different organisms. For example, fungi limit or destroy bacteria; staphylococci inhibit the growth of colon bacilli; acid-forming bacteria suppress pathogenic organisms in the vagina. Extravagent use of disinfection probably leads to a 'one-sided' bacteria flora in which aggressive pathogens develop more easily. Careful introduction of incompatible organisms might result in a higher degree of effective 'sterility' than the current wholesale destruction of all possible micro-organisms.

STERILIZATION

1635. BEN-ZVI, S. and GOTTLIEB, W. **Medical instrumentation and nosocomial infection.** *Journal of Clinical Engineering*, Diamond Bar, Calif., 1979, April/June, vol. 4, no. 2, pp. 135-145.

In the United States nosocomial infections are contracted by 1.5 million out of 33 million people entering hospital each year. One of the chief ways a patient may get infected is through inadequately or misused medical instruments. The clinical engineer must instruct hospital staff in proper sterilization and use of medical equipment. The authors give solid information on the danger of various specific procedures and methods to avoid infection. Staff are further advised to: (i) become acquainted with

their hospital's infection control committee; (ii) review all types of medical instruments and equipment; and (iii) ensure new items are capable of simple sterilization.

1636. NATIONAL STAFF COMMITTEE FOR ACCOMMODATION, CATERING AND OTHER SUPPORT SERVICES STAFF. **A report on the recruitment, training and career development of sterile supply service managers.** [London, Department of Health and Social Security], 1979, 47pp.

In 1976 the Department of Health and Social Security undertook a survey of managers and deputies in sterile supply departments. It was feared that a serious manpower shortage would occur unless a review was made of training and recruitment. The Committee makes a number of recommendations, including: (i) steps towards a recognised professional qualification; (ii) co-ordination of training at a regional level; and (iii) a recognised career pattern. The report includes as appendices an analysis of the CSSD managers job, an outline of a standard training programme, a specimen job specification and tables showing CSSD managers and deputies in post in June 1976.

AIR HYGIENE

See Abstract No. 1654

PERSONAL HYGIENE OF THE PATIENT

See also Abstract No. 1626

1637. LAWSON, S. **Bathing without back injury.** *Nursing Mirror*, Sutton, 1979, June 14, vol. 148, no. 24, pp. 22-24.

Many of the problems and injuries involved in bathing patients occur when transferring the patient to and from the bath; hoists used for this purpose are not always satisfactory. Using laboratory simulation and observations in a hospital, a study was made of bathing routines and the way hoists were used. Thirty female student nurses were selected to take part using the New Oxford Hoist and the Ambulift. Expired air and pulse rates were monitored during the trial in order to calculate the expenditure of energy involved. The fieldwork was carried out at Etwall Hospital, Derbyshire, and both laboratory and fieldwork groups answered questionnaires aimed at identifying their difficulties. The laboratory trials showed that the Ambulift was easier to use than the New Oxford Hoist, but more errors were made in using it. The length of time involved in using both hoists was related to the nurse's height. The fieldwork revealed that the hoist made drying and dressing the patient difficult. However, provided a number of design recommendations, listed here, are followed and sufficient training is given, the use of hoists should be a popular and safe method of lifting patients.

SAFETY MEASURES

See Abstract Nos. 1578, 1637, 1638

ELECTRICAL HAZARDS

See Abstract No. 1681

RADIATION HAZARDS

See also Abstract No. 1658

1638. MOULD, R. F. **Radiation protection for nurses.** London, IPC Business Press, 1978, [8]pp. £0.50

The labyrinthine nature of some legislation relating to radiation and the technical nature of some of the texts can discourage interest in this vital subject. This booklet is intended to convey some basic information to nurses using illustrations and a minimum of technical language. Radiation is normally confined to special treatment rooms but mobile X-ray machines should be avoided too by unprotected staff. Some useful guidance is also given on levels of exposure and lengths of half-lives.

THE PATIENT

WELFARE OF THE PATIENT

See also Abstract Nos. 1672, 1673, 1677, 1680, 1689, 1692, 1696

1639. SMITH, T. P., ADAMS, R. C. and THIEDEMAN, G. M. **Pharmacy involvement in a multidisciplinary diabetic teaching program.** *Hospital Pharmacy*, Philadelphia, 1979, June, vol. 14, no. 6, pp. 337-338, 343-344, 346-348, 352-354.

Lack of information can worry patients and conflicting information causes confusion and anxiety. In this study advice to patients was co-ordinated in an organized programme of education. It was demonstrated that classes covering different aspects of diabetis and its treatment increased patients' knowledge. An interdisciplinary team of health professionals contributed to the different classes, pharmacists being primarily involved in the class covering insulin, oral hypoglycemics, and insulin administration. One problem, however, is that many diabetics in hospital are too ill to sit through instruction classes, and the educational approach might be better suited to out-patient clinics.

VOLUNTARY SERVICE, VOLUNTARY WORKERS

1640. ADELSON, G., KAMINSKY, P. and COHEN, C. **Volunteers can help patients adjust.** *Health and Social Work*, Albany, N.Y., 1979, Feb., vol. 4, no. 1, pp. 184-199.

Patients moving from acute to long-stay care can make the adjustment more easily with the help of volunteers. Social work administrators at the Long Island Jewish-Hillside Medical Center developed a visiting scheme whereby trained volunteers visit patients awaiting transfer and continue to visit them after transfer. Since August 1976 the scheme has served about 60 patients and the long-stay institutions used regularly by

the hospital have a high regard for the scheme. Volunteers were trained in weekly seminars for six weeks, followed by weekly group supervision. The group sessions provided an opportunity for mutual support between visitors and a chance to resolve some of the difficulties of making contact with the aged and ill. Patients generally feel able to talk to the volunteers about their own personal problems and those associated with the institution in which they are living. The scheme has been welcomed by all those concerned and has been extended to include visits to patients who have returned to the community.

HOSPITAL SOCIAL WORK

See Abstract No. 1686

THE GENERAL PRACTITIONER AND HIS PATIENTS

1641. HIGGINS, P. M. **The GP/hospital interface.** *Journal of the Royal College of Physicians of London*, London, 1979, July, vol. 13, no. 3, pp. 132-138.

The author outlines the development of the hospital service and general practice as two separate systems, the most notable factor being the increased use of acute hospitals since 1949, with an accompanying increase in staff. The three determinants of hospital use are: (i) referrals from general practitioners; (ii) self-referral by patients; and (iii) 're-cycling' of patients between departments. A number of studies have revealed wide variations in referral rates which are not generally related to real differences in the need for hospital care. It appears that: (i) 40 per cent of referrals to out-patient clinics are unnecessary; and (ii) 25 per cent of men and 40 per cent of women in general medical beds do not require in-patient care. Referral decisions depend upon the view of the hospital taken by the general practitioner, the patient and the hospital specialist. If the professional differences between the general practitioner and the hospital doctor were not so great, the referral system would work better. If the balance between the two practices is to be corrected, the general practitioner must be supported by a hospital service which seeks to enhance his capabilities. There are 58 references following this paper.

TRANSPORT OF PATIENTS

See also Abstract No. 1668

1642. SCOTT, D. W., FACTOR, L. E. and GORRY, G. A. **Predicting the response time of an urban ambulance system.** *Health Services Research*, Chicago, 1978, vol. 13, no. 4, pp. 404-417.

Response time is the time taken from the dispatch of an ambulance to its arrival at the scene of the emergency, and it is often of vital importance. The various factors in response time were worked into a model and applied to 3,936 ambulance runs in Houston. Close agreement was achieved between actual and predicted times.

TERMINAL CARE

1643. MILLETT, N. **Hospice: challenging society's approach to death.** *Health and Social Work*, Albany, N.Y., 1979, Feb., vol. 4, no. 1, pp. 130-150.

The primary objective of hospice care is to control the symptoms of patients who are

terminally ill and provide emotional support for their families. The hospice movement has developed rapidly in the United States in recent years, providing various schemes of in-patient, out-patient and home care. The needs of a dying patient are usually not related to the functions of a general hospital, which are aimed at curative rather than palliative care. Hospice care gives high priority to the control of pain. Most hospices in England are independent from any other facility, but in the United States financial difficulties have led to the development of hospices as units within other hospitals. Some hospices run home care systems, the success of which depends largely upon the active participation of the patient's family. Hospice care offers the social worker numerous opportunities for a wide range of activities, including helping the bereaved and nursing staff support schemes. Volunteers can also be useful. Obstacles to the development of hospices in the United States include: (i) re-imbursement problems; (ii) professional attitudes; and (iii) laws against the use of heroin to control pain.

1644. FOSTER, Z. **Standards for hospice care: assumptions and principles.** *Health and Social Work*, Albany, N.Y., 1979, Feb., vol. 4, no. 1, pp. 117-128.

A Standards Committee of the International Work Group on Death, Dying, and Bereavement has published a set of assumptions and principles which it believes should underlie any set of standards for hospice care. The Committee maintains that the co-operation of many disciplines is vital and that social workers who are familiar with the effect on families of terminal illness, have an important part to play. The assumptions and principles are divided into four groups: (i) general; (ii) patient-orientated; (iii) family-orientated; and (iv) staff-orientated. The first group maintains that a wide range of professionals and the patient's family must be involved in terminal care, which should be provided in an environment which avoids isolation. The second group stresses the importance of continuous skilled terminal care involving control of pain and consideration of the patient's personal preferences and values. The third group outlines the kinds of help, including support after bereavement, which should be available for the patient's family. Finally, staff should be informed about developments in terminal care and be given time to develop relationships with patients and their families.

1645. STEDEFORD, A. and BLOCH, S. **The psychiatrist in the terminal care unit.** *British Journal of Psychiatry*, London, 1979, July, vol. 135, pp. 1-14.

Increasing numbers of dying patients are now being nursed in terminal care units or hospices; this article describes the work of a psychiatrist in one such unit in Oxford over two years. Fourteen per cent of patients were referred to the psychiatrist, although some guidance was given in other cases, including support to staff exposed to exceptional stress. The findings suggest that a psychiatrist can play a useful role in a team, advising medical and nursing staff in the psychological care of patients and helping more directly in the management of psychiatrically complicated cases.

1646. OSTERWEIS, M. and CHAMPAGNE, D. S. **The U.S. hospice movement: issues in development.** *American Journal of Public Health*, Washington, D.C., 1979, May, vol. 69, no. 5, pp. 492-496.

Hospice care is intended to help the terminally ill maintain a personally acceptable quality of life until death occurs. The American approach to hospice care has been

influenced by British experience and a brief description is given of the situation in Britain. Particular problems in the United States occur, however, because care is related to ability to pay and a large bureaucracy controls payments and standards. The authors emphasize that hospices should not be regarded as a cheap alternative to terminal care in hospitals and call for continuing consultations between government, patients, management and staff.

HOSPITAL CARE

See also Abstract Nos. 1589, 1590, 1593, 1597, 1615, 1618, 1626, 1640, 1667, 1693

1647. GOLDBERG, B. A. **The duty of hospitals and hospital medical staffs to regulate the quality of patient care.** *Journal of the Kansas Medical Society*, Topeka, Kans., 1979, Feb., vol. 80, no. 2, pp. 75-81.

In this paper a retired judge discusses the questions of hospital and medical staff liability for the quality of patient care in the United States. He traces the genesis of hospitals' liability, discusses the role and effectiveness of the standards of the American College of Surgeons and Joint Commission on Accreditation of Hospitals, and mentions the possibility of staff members with reviewing responsibilities being held liable for patients injured by a deficient doctor allowed to remain on the staff. Leading cases are discussed. His advice for resolving the liability is to take care of the patient and the liability will take care of itself.

1648. WOODBINE, A. **Pressure sores—1. A review of the problem: factors contributing to the formation and exacerbation of pressure sores.** *Nursing Times*, London, 1979, June 28, vol. 75, no. 25, pp. 1087-1088.

There are a number of external and internal factors which exacerbate the problem of pressure sores. External factors include: (i) wetness, caused by perspiration or urinary incontinence; (ii) irritation caused by chemicals; (iii) bacteria; and (iv) excessive heat. Internal factors associated with acute illness are less obvious and include: (i) malnutrition; (ii) vitamin C deficiency; (iii) shortage of oxygen; and (iv) metabolic disturbances. Pressure becomes a problem when the patient is immobile; reasons for immobility are: (i) movement causes pain; (ii) drugs can cause drowsiness; or (iii) movement is restricted by artificial appliances. Owing to its dryness and reduced ability to absorb medicaments, the skin of an elderly patient takes longer to heal. Ulceration of the skin is more common in the elderly and is generally caused by internal factors rather than by bacterial invasion. These factors need to be looked at before treatment of pressure sores is begun.

1649. GORAN, M. J. **The evolution of the PSRO hospital review system.** *Medical Care*, Philadelphia, Pa., 1979, May, vol. 17, no. 5; supplement.

The professional standards review organization (PSRO) programme has been the subject of intense controversy, particularly with regard to the relative emphasis on quality or costs. But there is no longer any question about the priority goal of the programme for the remainder of this decade—to reduce the excessive use of hospital care and services that exists throughout the United States. The current status of PSRO is described in detail. Major changes in PSRO hospital review include the transition

to problem-oriented review incorporating cost-effectiveness analysis. Improvements in review methods discussed are: interrelationship of review components and the focusing of concurrent review; refinements in medical care evaluation studies; the scope of review; the integration of profile analysis; and re-examination of objectives of profile analysis. Profile analysis is described in detail. Finally the potential technical and political barriers to the achievement of success by PSROs are discussed. A list of 73 references to the literature is included.

1650. ABRAMSON, J. H. **The four basic types of evaluation: clinical reviews, clinical trials, program reviews, and program trials.** *Public Health Reports*, Hyattsville, Md., 1979, May/June, vol. 94, no. 3, pp. 210-215.

The amount of literature on the evaluation of health care and the number of models and techniques available have resulted in confusion, often made obvious by the poor design and unhelpful findings of evaluative studies. This paper attempts to simplify matters by identifying and discussing four basic types of evaluation, each of which is appropriate in a distinctive situation. The differentiation of these situations depends on the answers to two questions: why is the evaluation being done? and what is being evaluated? The basic questions posed in evaluative studies relate to requisiteness, quality, efficiency, satisfaction and differential value. Like other value judgments, the evaluation of health care can never be wholly objective. However, objectivity can be enhanced if criteria are explicitly formulated and if careful attention is paid to the collection of accurate and pertinent information.

1651. KINCAID, W. H. Methoden und Ergebnisse der Qualiätssicherung im Bereich von Diagnostik und Therapie in den USA. **[Methods and results in safeguarding the quality of diagnosis and treatment in the United States.]** *Krankenhaus-Umschau*, Kulmbach, 1979, June, vol. 48, no. 6, pp. 472, 475-477.

The author describes medical audit, as practised in the United States, as well as the work of the Professional Standards Review Organizations (PSROs). The PSROs are headed by doctors and have two main tasks: to maintain a high quality of medical care, and to ensure optimal use of existing medical equipment for patients being paid for from public funds. Many hospitals carry out 'medical care evaluation studies' under the guidance of a committee (in large hospitals sub-committees are set up for individual specialties). The steps in this evaluation are: selection of theme; determining criteria; collection and analysis of data; analysis of deficiencies; recommendations; checking of recommendations; re-study of themes; and report on results. It has been shown that 'medical care evaluation' studies have proved their worth.

HOME CARE, AFTER-CARE

1652. SLACK, G. and GIBBINS, J. **Organising aftercare: an examination of ways in which aftercare arrangements for elderly hospital patients could be improved in order to ensure their fullest recovery and maintain their independence.** London, National Corporation for the Care of Old People, 1979, [iv], 38pp. £1.16

The total care offered by hospitals can create a dependence which can make returning

home a devastating shock. Friends and family can help and a variety of services and support systems exist, unfortunately often unknown to potential beneficiaries. The particular problems of old people returning home were the subject of this study. The authors conclude that: (i) District Management Teams should develop policies in conjunction with Social Service Departments; (ii) hospital staff should make occasional domiciliary visits; (iii) more use should be made of information from the community (e.g. G.P.'s, social workers, neighbours); and (iv) monitoring of discharge procedures should be developed.

SPECIAL DEPARTMENTS

OPERATING SUITES

See also Abstract No. 1571

1653. O'REILLY, B. **OR X-ray plan: new UCLA suites benefit surgeons, patients.** *Contemporary Surgery*, Redondo Beach, Calif., 1979, March, vol. 14, no. 3, pp. 71-73, 75-76.

Radiologists, surgeons and engineers of the UCLA Center for Health Services have produced a radiographic unit which enables surgeons to study images during surgery and reduces the time spent by patients in the operating theatre. Each unit is suspended from the ceiling and provides images on four television monitors located within each of two operating suites. A control desk is situated between the two suites and the location and mobility of the units ensure they will not hinder any member of the theatre team. A video disc recorder enables studies made during an operation to be replayed instantly and the surgeon may make a radiograph for instant viewing by activating a foot switch. After years of planning, UCLA has installed the latest in radiological equipment for surgical theatres.

1654. VIRTUE, R. W., ESCOBAR, A. and MODELL, J. **Nitrous oxide levels in operating room air with various gas flows.** *Canadian Anaesthetists' Society Journal*, Toronto, 1979, July, vol. 26, no. 4, pp. 313-318.

Samples of air were collected at six different sites (outlet, nurse, surgeon, anaesthetist, patient, relief valve) during surgical procedures. The collections were made in three-litre stoppered, evacuated, conductive neoprene breathing bags by removing the stopper and pulling the sides of the bag apart, then rapidly replacing the stopper. The results are presented in two tables and discussed. Without scavenging, the highest time-weighted average value inhaled by any of the staff (anaesthetics) was 31 ppm, when flows of 500 ml of nitrous oxide per minute were used. The lowest reported harmful concentration (unconfirmed) is 50 ppm. Lower flows produced lower values. With good scavenging, using flows as high as 2.5 l/m of nitrous oxide, the highest average value (anaesthetist) was 7.2 ppm. The discussion includes reasons for using low flows, including the cost of wasting anaesthetic agents and pollution of the entire atmosphere.

PHARMACY

See also Abstract No. 1639

1655. O'KANE, M. K. and BARRETT, C. W. **Problems of determining and meeting the requirements for providing an effective pharmacy service during evenings, nights and weekends at a London teaching hospital.** *Journal of Clinical Pharmacy*, Oxford, 1979, June, vol. 4, no. 2, pp. 59-70.

Staff shortages have meant a steady reduction in the opening hours of hospital pharmacies. The London Hospital pharmacy is open only 54 hours a week, with no service during the evenings, Saturday afternoons or Sundays. Senior staff provided an emergency service free of charge but could not always be contacted and often had to travel considerable distances. A survey showed considerable need for a service outside normal hours and an attempt to introduce a rota and bleeper system was made. The authors recommend the following graduated stages towards an expanded system: (i) formation of a formal rota of pharmacists available by long range bleep; (ii) availability of pharmacists on site during evenings, Saturday afternoons and for a period on Sunday; and (iii) institution of a residency service when a pharmacist is available on site at all times.

1656. GOODMAN, M. E. and WOODBRIDGE, M. **The effectiveness of a unit of use drug distribution system.** *Australian Journal of Hospital Pharmacy*, Prahran, Vic., 1979, March, vol. 9, no. 1, pp. 33-36.

In an attempt to reduce stocks held and to control dispensing more closely an Australian hospital introduced a 'unit of use' system. A unit of use pack is a packaged unit containing sufficient doses of a preparation for a course of treatment, and costs are less than for the individual 'unit dose' packs. Packages were issued for seven-day periods and the buffer stock held on the wards greatly restricted. The estimated savings were six per cent on the total drug bill over the course of a year. As a result of time savings pharmacists were able to spend longer on the wards and a reduction of medication errors was also noted.

1657. SCHMIDT, F. Bericht über die Aufstellung einer Arzneimittelliste für Krankenhäuser. **[Drawing up a drugs list for hospitals.]** *Krankenhausarzt*, Karlsruhe, 1979, July, vol. 52, no. 7, pp. 573-574.

The author, chief pharmacist at the Medical Academy, Lübeck, describes how a selected list of drugs for use in the hospital was prepared. Drugs were to be selected on the following criteria: proven efficiency; lack of side effects or hazards; pharmaceutical quality; and economical price. A standing committee was set up and lists of drugs were circulated to all departments for comment. The returns were evaluated by the committee and a final agreed drugs list prepared showing trade names, components, dosages and form.

LABORATORIES

1658. MITCHELL, J. E. N. **RIA a safe procedure in clinical chemistry.** *Middle East Health Supply & Service*, Sutton, 1979, June, vol. 3, no. 6, pp. 33-35.

All chemical procedures probably involve some degree of potential hazard, however

imperceptibly small. Radioimmunsassay need not provide biological dangers significantly greater than in non-radioactive tests. This paper presents the balance between hazard and benefit in a quantified way. Potential hazards and essential safety procedures are outlined. It is concluded that the hazards involved in radioimmunsassay are, in practice, quite negligible. They are also probably much better understood than the multi-facetted hazards of chemicals *per se*.

1659. ENGER, S. C. Et standard EDB-system for norske sentrallaboratorier? **[A standard electronic data processing system for Norwegian central laboratories?]** *Norsk Sykehustidende*, Oslo, 1979, vol. 52, no. 3, p. 11.

A team of pathologists have developed a computer-based laboratory system for clinical chemical laboratories. The patient is registered on admission or attendance as an out-patient, the data being erased on discharge or after six weeks except for certain categories of case. The patient's identification data are punched into test or examination requisition cards which accompany him during his stay in hospital. Tests are requested by marking the card with a pencil; the card is placed in a reader and the requisite labels and results cards are produced. A special type of card is used for requesting and recording results of analyses which do not need the assistance of laboratory staff (e.g. urine tests). The computer (Nord-10) can produce interim reports to wards several times a day; it prints out results of out-patient examinations to the relevant doctors; and it bills insurance schemes and outside institutions requesting tests. When a new test is requested for a patient, the result is printed out with the accumulated results of previous tests. Statistics are sent to the laboratory of tests done, or tests not completed. Ward terminals are available, and Akershus Central Hospital has installed an on-line module with direct display of analysis results.

DIAGNOSTIC X-RAY DEPARTMENT

See Abstract No. 1653

REHABILITATION

See Abstract Nos. 1680, 1691, 1693

DEPARTMENTS FOR SPECIAL THERAPY

1660. MOFFITT, P., FOWLER, J. and EATHER, G. **Bed occupancy by diabetic patients.** *Medical Journal of Australia*, Glebe, 1979, March 24, vol. 1, no. 6, pp. 244-245.

The Royal Newcastle Hospital Diabetic Education and Stabilization Centre, Newcastle, New South Wales, was set up to improve diabetics' management of their disease on an out-patient basis. Between July 1976 and June 1977, 24 educational courses involving 247 insulin-dependent diabetics and a large number of nurses were held. Three other factors have contributed to a reduction in bed occupancy by diabetics: (i) a five day out-patient stabilization programme; (ii) the use of the Centre

for advice during acute illness; and (iii) a reduced length of stay when admission is needed for reasons other than diabetes. The reduction achieved is equivalent to a saving of 1,400 bed days per year.

INTENSIVE CARE UNITS

See also Abstract Nos. 1570, 1588, 1633

1661. IBE, K. Die Organisation der Intensivmedizin—aus ärztlicher Sicht. **[The organization of intensive medicine from the doctor's viewpoint.]** *Deutsche Krankenpflege-Zeitschrift*, Stuttgart, 1979, vol. 32, no. 8, pp. 382-387.

An intensive care unit should have not less than 10 beds and not more than 20. Staffing has to be fully maintained throughout the 24 hours. For a 10-bed unit there should be five doctors and 10 nurses plus eight nursing assistants and auxiliary staff. Intensive care units also have to provide for post-basic training of the specialist staff and for the carrying out of essential projects; the main requirements for these purposes are outlined.

1662. NUNN, J. F., MILLEDGE, J. S. and SINGARAYA, J. **Survival of patients ventilated in an intensive therapy unit.** *British Medical Journal*, London, 1979, June 9, vol. i, pp. 1525-1527.

The survival of patients who were artificially ventilated in an intensive therapy unit at Northwick Park Hospital, Harrow, was studied. One hundred patients who were ventilated for over four hours were followed up for four years. A total of 53 patients died in hospital, 17 died during the three years following discharge, and the remaining 30 patients survived for at least four years. Of the patients who did not require ventilation, 89 per cent survived. The effects of age, duration of ventilation, and disease were studied. A higher survival rate was found in patients under 15 years, in those ventilated for under 24 hours and in those admitted with drug overdoses. Survival was poor in patients over 75 and in those who required ventilation after cardiac arrest or for chronic obstructive lung disease. Intensive therapy units are expensive and to use them to their greatest effect it is important to define patients who are most likely to benefit from the facilities they offer.

1663. DUST, G. and VOLLES, E. Personelle und organisatorische Aufgaben bei der neurologischen Intensivversorgung. **[Staffing and organization of neurological intensive care units.]** *Krankenhausarzt*, Karlsruhe, 1979, July, vol. 52, no. 7, pp. 566-568.

The main objective of a neurological intensive care unit is the symptomatic treatment of acute neurological diseases. The unit should be divided into a number of single or double-bedded bays. Admission should follow consultation with other departments of the hospital, or with the out-patient department. The unit must always be in a position to admit a patient needing its services. Nursing staff do not normally serve in the unit for more than three years, usually because of the physical and mental stress which the work entails. This can lead to staff shortages, which are particularly serious in the case of intensive care. There should be regular discussions in which all members of the staff

of the unit take part. For medical staff there should be either a three-shift service or an on-call system. There should also be one or two rotating posts which are changed twice a year.

SPECIAL HOSPITALS AND UNITS

OUT-PATIENT

See also Abstract Nos. 1676, 1682, 1684, 1689, 1695

1664. COTTRELL, K. M. **Definition and display of clinic statistics.** *Hospital and Health Services Review*, London, 1979, June, vol. 75, no. 6, pp. 205-208.

If statistics based on numbers of patients attending out-patient clinics are to be helpful, the type of out-patient must be clearly defined. The current measures of attendances at out-patient clinics are based on new and follow-up patients, but not all patients attending for the first time in one specialty are classified as new out-patients for a number of reasons. One of these is that patients attending as out-patients following a period as an in-patient are not included. This results in an under-estimation of new patients and a consequent over-estimation of the average number of attendances per patient. Some attempt must be made to correct this distortion. The author describes a graphical method used by the North Western Regional Statistical Unit where the use of first attenders and re-attendances provides a correct estimate of attendances per out-patient while still showing the total attendances per clinic. If meaningful comparisons of out-patient activity are to be made between hospitals, changes need to be made in the statutory regulations for out-patient returns, possibly using the type of presentation outlined in this paper.

1665. STEINWACHS, D. M. and MUSHLIN, A. I. **The Johns Hopkins ambulatory-care coding scheme.** *Health Services Research*, Chicago, 1978, vol. 13, no. 1, pp. 36-49.

A classification and coding system for out-patient care has been developed at Johns Hopkins Medical Institution, with computerized records. Codes are assigned to diagnoses, symptoms, procedures, and treatments. About 85 per cent of records are machine-codable; the remainder are alphabetized for efficient manual coding. The coding system is integrated with an overall information system that allows linkage of coded problem data to diverse data on patient and provider characteristics. The data can be used for purposes such as care evaluation, management and clinical research.

1666. BOSTIN, M. J. **Planning hospital-based primary care services.** *World Hospitals*, London, 1979, May, vol. 15, no. 2, pp. 110-113.

After discussing the nature of primary care and the factors influencing the need/demand for primary care services, this paper describes the organization, programme planning, space planning and design criteria for hospital-based primary care services. There is particular emphasis on staffing models, use of non-physician primary care providers, scope of services and locational criteria.

CASUALTY AND ACCIDENT

1667. SHIRCORE, R. and GARRISON, T. **Deficiencies in efficiency.** *Health and Social Service Journal*, London, 1979, May 25, vol. 89, no. 4643, pp. 626-627.

The authors maintain that the technical advances made in treating acute illness have outstripped the management capability permitted by the administrative structure of acute hospitals. Crisis intervention, such as the treatment of cardiac arrest, often requires an arbitrary form of decision making which the present management structure is not designed to handle. Responsibility for servicing and maintaining equipment poses another problem. A further hindrance to prompt response to emergencies is the often poor quality of hospital communications, compared with those of the ambulance service. A management structure needs to be devised which reflects the fact that hospital buildings, staff and equipment need to be managed as a single unit.

1668. PIGANIOL, G. and others. Organisation de l'accueil et secours d'urgence. **[Organization of casualty and ambulance services.]** *Médecine Hospitalière*, Paris, 1979, April, vol. 15, no. 2, pp. 71-75.

The authors trace the development of SAMU (Emergency Medical Aid Service) in France from the first hospital-based ambulance service for road accident cases, established in 1959 at Salon-de-Provence, until the present day and summarize the content of successive government circulars on the subject. SAMU is based on public hospitals; most private clinics do not have the resources to participate in SAMU, but individual doctors in private practice do night duty for it. It is now being suggested in some quarters that each SAMU should be administratively and financially independent of the public hospital; this would leave the way open for greater participation by private medicine. The authors' view is that standardization of SAMU's administration and budget is desirable but that the system should remain firmly attached to the public hospital which was responsible for its development in the first place.

1669. GIBSON, G. **The emergency department as a screening point for hospital specialty services: inclusionary vs exclusionary strategies.** *Social Science and Medicine*, Oxford, 1979, June, vol. 13A, no. 4, pp. 495-498.

Casualty units can follow two different policies when deciding whether to refer patients to specialists. The 'inclusionary strategy' tries to avoid leaving undetected problems by passing on a large number of patients. The 'exclusionary strategy' is the opposite and potentially dangerous policy, requiring considerably more skill from the staff in the casualty department. A model is proposed for analyzing the strategy used and for assessing the implications for the rest of the hospital.

OCCUPATIONAL HEALTH

1670. SIMSON, R. E. **Occupational health service for hospital staff.** *Medical Journal of Australia*, Glebe, 1979, March 24, vol. 1, no. 6, pp. 225-227.

A well-organized occupational health service for all types of hospital staff is a good long term investment. Measures carried out for the benefit of patients, such as infection

control and immunization programmes will, of course, also benefit the staff. Early contact with student nurses through the pre-entry medical provides a convenient opportunity for health education and may make later counselling easier. Adequate provision should be made for counselling, whether over health or other personal difficulties, especially as relations between staff and patients often lead to psychological problems. Staff health and safety should be promoted by regular review of the many hospital working environments and a process should exist for the investigation of all accidents. The ideal occupational health service should be advisory and preventive, but some treatment is bound to be involved. The service should be run by occupational nurses, supported by a medical practitioner with a special interest in occupational health. Large hospitals may be able to provide small hospitals with a consultative service.

DAY HOSPITALS

See Abstract No. 1675

INFECTIOUS DISEASES AND ISOLATION

1671. AYLIFFE, G. A. and others. **A unit for source and protective isolation in a general hospital.** *British Medical Journal*, London, 1979, Aug. 25, vol. ii, pp. 461-465.

Expensive ventilation or facilities are less effective for preventing spread of infection than are sound isolation-nursing techniques. In this study 12 cubicles, with plenum ventilation, were studied over an 18-month period. Cubicles with protective isolation patients had extractor fans turned off to produce air flow from cubicle to corridor. Since infected and susceptible patients were treated in the same unit scrupulous attention was paid to hygiene. *Staphylococcus aureus* was taken as an indicator of infection; only two cases of suspected contact spread was found. Bacilli were found less often in tests in the isolation ward than on other wards, and gram-negative bacilli were rarely recovered from the hands or protective clothing of staff.

CHILDREN

See also Abstract No. 1592

1672. NIELSEN, E. and ZEUTHEN, B. Skoleliv på Roskilde amts Sygehus. **[School life at Roskilde County Hospital.]** *Sygeplejersken*, København, 1979, March 14, no. 11, pp. 7-8.

Roskilde County Hospital has installed a schoolroom in the old staff smoking room; there is room for four beds and some ten children at any one time. Teaching takes place from 0900 to 1130 and from 1215 to 1400. In addition to the schoolroom there are two playrooms where children can sew, knit, paint and do other activities. There are three teachers in the morning and two in the afternoon; the teachers arrive at 0800, open the school, and consult the nursing staff on which children are well enough to attend. The teachers also try to fit in visits to children who are too ill to come to

school. They contact the pupil's school in the case of new admissions and discharges, consulting the administrative office and the class teacher. The staff have prepared a letter explaining the school system to parents of newly admitted patients and a quiz questionnaire they gave to children to find out how much they have learnt about the hospital and what hospital schooling means to them. The article is illustrated with a sketch ground plan of the school accommodation.

1673. JEPSEN, E. Børn og hospital /6: også syge børn skal undervises. **[Children in hospital /6: sick children should be taught as well.]** *Sygeplejersken*, København, 1979, March 14, no. 11, pp. 4-6.

Under the Danish Education Act of 1975, sick school-age children (six to 18), whether at home or in hospital, must be taught school subjects. The teaching of children at home is the responsibility of the school, the teachers being paid overtime by the local authority. If necessary, the child is driven to school at local authority expense. The teaching of young in-patients is the responsibility of the county in which the institution is situated and must be commenced within three weeks of admission. The aim of this legislation is to ensure that sick children do not drop behind in their school work and to give them psychological and social support during their illness. The hospital teacher is responsible for arranging lessons as close as possible to the syllabus in the pupils' own schools. He must be competent to teach all general subjects up to Lower Leaving Certificate level and be acquainted with special subjects. Classes should not exceed six in number, and should be given one or two lessons a day up to Fourth grade (11 years old) and double that number from Fifth grade (12 years old) upwards. Large hospitals should have a properly equipped teaching centre.

GERIATRICS AND LONG-STAY

See also Abstract Nos. 1605, 1652, 1691

1674. MEMEO, S. A. and RENZULLI, L. Profili strutturali ed organizzativi dell'ospedale geriatrico. **[Structure and organization of geriatric hospitals.]** *Tecnica Ospedaliera*, Milano, 1979, June, vol. 9, no. 6, pp. 35-42.

The authors believe that a horizontal building is more suitable for a geriatric hospital than a vertical one. The article recommends: (i) corridors should not slope more than five per cent; (ii) dayrooms should be provided with handrails anchored to the walls; (iii) doorways should be wide enough for wheelchairs; (iv) stairs should be wide and shallow; and (v) floors should be covered with anti-slip material. It is suggested that two to five per cent of beds in a geriatric hospital be devoted to intensive care, 50 to 55 per cent to semi-intensive and basic care, 15 per cent to long-stay cases, 10 to 12 per cent to neuropsychogeriatric patients, and 15 per cent to rehabilitation. The authors express regret that as yet there are very few geriatric hospitals in Italy.

1675. BROCKLEHURST, J. C. Die geriatrische Tagesklinik. **[The geriatric day clinic.]** *Rehabilitation*, Stuttgart, 1979, Aug., vol. 18, no. 13, pp. 117-122.

The author describes the geriatric day hospital system which has developed in Great Britain over the past 25 years under the National Health Service. Patients are

referred to these day hospitals for four main purposes: rehabilitation; support treatment; social care; and medical and nursing observation and treatment. Geriatric day hospitals have become an important component of the care of the elderly and are regarded by the overwhelming majority of geriatricians as one of their most important aids.

1676. CALEY, B. **Outpatient services for the geriatric patient.** *Health and Social Work*, Albany, N.Y., 1979, Feb., vol. 4, no. 1, pp. 201-210.

The Senior Citizen's Health Center at St. Luke's Hospital, Denver, Colorado was established in 1975 to meet the needs of an increasing elderly population in Denver's inner city. By February 1979 2,000 patients were enrolled at the Center, 40 per cent of whom were aged over 75. In addition to medical help, social services are provided by 2 medical social workers and assistants. This service includes an assessment of living conditions, basic needs and the availability of resources and supporting relatives. A treatment plan is then developed which often includes referral to outside agencies providing services to geriatric patients. Group therapy is offered at the Center by volunteers and is much appreciated by members who would otherwise be lonely. Crisis work includes placement in nursing homes and help with daily basic needs. However, a social service scheme in a centre which is primarily medical does present some problems. Ideally, a two part social programme is needed, one for the well and one for those who are ill. Both the medical and the psychological needs of patients can be met in one centre by selecting staff who have a real concern for the elderly.

1677. RAPHAEL, W. and MANDEVILLE, J. **Old people in hospital: a survey of opinions of patients, visitors and staff.** London, King Edward's Hospital Fund for London, 1979, 52pp. £2.50

This survey in six geriatric hospitals was planned to compare views of long-stay patients and their visitors with those of the staff. Patients and visitors were found to have a higher ratio of satisfaction than the staff. Patients appreciated small rooms but staff preferred larger ones, whilst both groups deplored lack of privacy for washing and shortage of lavatories. Other complaints by inmates included noise, lack of day rooms and lack of occupational classes or entertainments. Both patients and relatives felt they lacked information from doctors whilst staff felt they should be consulted more by the administration. Examples of the questionnaires used in the survey are included.

1678. COHEN, M. B. **Long-term care and cost control: a critical analysis.** *Health and Social Work*, Albany, N.Y., 1979, Feb., vol. 4, no. 1, pp. 60-88.

Regulations aimed at controlling the cost of long-stay care facilities were set out by the Department of Health of New York State in 1977. Requests for placement in skilled nursing facilities, or facilities where only minimum care is required, are assessed after form DMS-1 has been completed for each patient concerned. The form is also used to determine Medicaid reimbursement rates; Medicare only covers those needing skilled nursing care. Patients must accept the first bed available at the appropriate level of care, and they may be isolated from family and friends, possibly 50 miles away. Also DMS-1 takes no account of the patient's psycho-social position. Although it has probably reduced waiting time for long-stay care, the cost-effectiveness of this scheme

of assessment has yet to be proved. The provision of long-stay care of all types under one roof would provide greater stability for the patients and would probably reduce costs in the long run.

1679. LEFTON, E. and LEFTON, M. **Health care and treatment for the chronically ill: toward a conceptual framework.** *Journal of Chronic Diseases*, Oxford, 1979, vol. 32, no. 4, pp. 339-344.

With a falling birth rate and a rising life expectancy the age structure of western countries is changing and chronic illness is becoming prevalent. The authors believe chronically ill people need particular treatment and have needs well beyond medical considerations. Emphasis is laid upon the need for a team approach to chronic care, sometimes involving contributions from outside the hospital. While the patient is in hospital the team must respond to his changing condition: when the illness is stabilized for instance the medical or rehabilitation staff have a more important role. A flexible team approach is the model suggested for chronic care.

CARDIOLOGY

See also Abstract Nos. 1571, 1667

1680. WILSON-BARNETT, J. **A review of research into the experience of patients suffering from coronary thrombosis.** *International Journal of Nursing Studies*, Oxford, 1979, vol. 16, no. 2, pp. 183-198.

There is now a substantial volume of literature on how patients respond to a heart attack, from admission to a coronary care unit, transfer to a hospital ward and to their subsequent recovery at home. The paper reviews the research on the subject with emphasis on its relevance to nursing practice. Research has provided some guidance for practice. Explanation does help patients both in hospital and after discharge. As anxiety and depressive reactions are common, staff should be oriented to preventing these by anticipating patients' needs. Patients are helped by detailed outlines of their programmes which should be individualized. On the whole an optimistic outlook is justified and therapeutic. A few comprehensive programmes have been initiated and run by nurses. A list of 41 references to the literature is included.

UROLOGY

1681. DELLER, A. G. M. **Electrical safety in dialysis.** *Journal of Medical Engineering and Technology*, London, 1979, July, vol. 3, no. 4, pp. 186-191.

Electrical hazards in dialysis equipment arise from the unintended passage of electric current through the patient. The main primary electrical hazards are described, and typical thresholds quoted. The complete dialysis installation is considered in some detail, bearing in mind the recently published British Standard BS5724, part 1, on the safety of electromedical equipment. The microshock risk from leakage and fault currents flowing through the patient via the dialyser and lines is assessed and found to be of very little significance. Equipment constructed to BS5724 should not, by its

design, give rise to primary electrical hazards. The continuing safety of dialysis installations can, however, only be ensured by regular routine testing, and suitable tests are described. It is concluded that, with regularly maintained and tested equipment, dialysis should be considered a relatively safe procedure as far as primary electrical hazards are concerned.

1682. HART, A. J. L., EDMOND, P. and VARMAN, D. J. **Postcards or outpatients: an alternative method of follow-up.** *British Medical Journal*, London, 1979, May 19, vol. i, pp. 1321-1322.

The study described was carried out to determine whether a postcard completed by the patient could accurately reflect the problems which occurred following out-patient urological procedures. The questions were designed to assess the occurrence of the most probable complications, using non-medical terms. A small percentage of the first batch of cards was returned, but after further instructions to patients, 812 out of 890 cards issued were returned. An adaptation of this system could be used to monitor the progress of a wide range of selected patients. Those who did not respond or who obviously needed further review would be sent appointments. The system reduces costs and releases out-patient time for those who really need it.

SURGERY

1683. MAGERLEIN, J. M. and MARTIN, J. B. **Surgical demand scheduling: a review.** *Health Services Research*, Chicago, 1978, vol. 13, no. 4, pp. 418-433.

This article reviews the literature on scheduling of patient demand for surgery, with particular reference to the problems of estimating time required for operations. There are two types of scheduling: (i) advance scheduling, where patients are put into a waiting list; and (ii) allocation scheduling, where the sequence of surgical cases for a given day is arranged. The simple form of advance scheduling takes into account only operating-theatre availability but more advanced techniques take in multiple factors such as beds, staff and equipment. The authors conclude that although systems are complicated, often requiring an on-line computer facility, there should be more attempts to tackle the problems of scheduling.

1684. GROSSMAN, R. M. **Is ambulatory surgery less expensive?** *Hospitals*, Chicago, Ill., 1979, May 16, vol. 53, no. 10, pp. 112, 116.

This paper examines the cost containment issues involved in ambulatory surgery, with particular reference to whether it should be performed in a hospital or in a separate unit. A variety of considerations have to be analyzed. It is concluded that ambulatory surgery clearly promotes cost containment, and hospitals should play a vital role in providing this service. Independent facilities can be expected to increase in number, sometimes inappropriately. Therefore, hospitals should consider developing hospital-based ambulatory surgical programmes as appropriate, especially if excessive surgical capacity exists in their service area.

MATERNITY

See also Abstract No. 1631

1685. McClain, J. O. **A model for regional obstetric bed planning.** *Health Services Research*, Chicago, 1978, vol. 13, no. 4, pp. 378-394.

Utilization of obstetric beds can be inefficient because of the randomness inherent in the occurrence of births. Efforts to get round the problem by placing non-obstetric patients in obstetric units have not been very successful. A stochastic model, therefore, was developed in New York State to forecast allocation of non-obstetric patients and the effect of such allocations. The model was tested with data from six hospitals, and its possible use in decisions on merger of units and decertification of beds was explored.

1686. Kaminsky, B. A. and Sheckter, L. A. **Abortion counseling in a general hospital.** *Health and Social Work*, Albany, N.Y., 1979, May, vol. 4, no. 2, pp. 92-103.

The abortion counselling service at Vancouver General Hospital is described. The service is run by a project co-ordinator and a clinical supervisor and two counsellors interview patients before their abortion, on the day of the procedure and a short time afterwards. The patient is given information on: (i) the alternatives to abortion; and (ii) the importance of using effective methods of contraception to prevent further unwanted pregnancies. In addition, attempts are made to relieve anxiety regarding the abortion. Preliminary research findings have shown that the service educates women about contraception and reproduction and provides them with emotional support. A booklet has been written to back up the information given during counselling sessions. One notable aspect of the project is the close working relationship which has developed among the four women concerned and the ways in which their attitudes to abortion have changed. When a surgical day care unit was opened in 1977, the counselling service was extended to meet the needs of the larger number of patients considering abortion.

1687. Grothe, W., Rüttgers, H. and Kubli, F. Ein Informations-und Überwachungssystem für den Kreisssaalbetrieb. **[An obstetic computer system for intensive care of mother and fetus during labour.]** *Biomedizinische Technik*, Berlin, 1979, April, vol. 24, no. 4, pp. 89-96.

The computer at the University Woman's Hospital, Heidelberg, can store and process on-line all the data produced during labour. The system is intended to provide intensive care for both mother-to-be and the foetus during the final stages of labour. In particular, the foetal heart rate and the intra-uterine pressure are picked up and processed automatically. Human supervision of the computer is necessary to determine the presence of an 'event' and report this to the computer, which can then quantify and process the 'events'. It is possible to achieve a standardized treatment of different patients and enable comparative data to be obtained from the computer. This information system is employed in clinical routine and can be used for the establishment of medical records and for the doctor's report.

1688. WHITBY, C. A. and others. **Ten neonatal nursing papers.** London, [National Neonatal Nurses Group, distributed by DHSS, 1979], 69pp.

These papers are taken from a conference at University College Hospital in 1978. Ten papers were presented by nurses from intensive and special care baby units, covering clinical aspects of care, education, management and community care. The Department of Health and Social Security has issued a limited number of copies of these proceedings in view of the current interest in perinatal mortality and morbidity.

PSYCHIATRY

See also Abstract Nos. 1572, 1627, 1645

1689. TANTAM, D. and KLERMAN, G. **Patient transfer from one clinician to another and dropping-out of out-patient treatment.** *Social Psychiatry*, Berlin, 1979, vol. 14, no. 3, pp. 107-113.

It is important in psychiatry, as in other medical fields, that patients adhere to their treatment and attend appointments. A study was made of patients applying to a community mental health centre in the United States. Thirty-two per cent of applicants did not attend at all and of those that did 31 per cent dropped out. Transfer of the patient from one clinician to another greatly increased the chances of a patient dropping out. The authors recommend that patients should not be transferred and extra efforts should be made if a transfer cannot be avoided.

1690. HALL, J. N. **Maintaining change in long-stay wards.** *Apex*, Kidderminster, 1979, June, vol. 7, no. 1, pp. 4-6.

In any long-stay psychiatric hospital, a 'change agent' such as a psychologist on the staff, is needed to run any programme involving change. An example of such a process is the introduction of behaviour modification techniques. Careful training of ward staff is essential in bringing about ward changes. The necessity to relieve staff in other wards and high rates of staff turnover are possible obstacles to the successful maintenance of change. When targets, such as the reduction of aggressive behaviour have been set, nurses must be aware of the standard of behaviour expected from any resident for any given task. 'Change agents' must inform the rest of the hospital about changes planned in a particular ward and any innovation must be integrated with both the clinical and administrative procedures of the hospital.

1691. COTTON, P. G., BENE-KOCIEMBA, A. and KELLY, C. E. **A community program for elderly state hospital patients.** *Journal of Geriatric Psychiatry*, New York, 1978, vol. 11, no. 2, pp. 217-230.

The geriatric team within the Ambulatory Community Service, (GT-ACS) the after-care service of Cambridge-Somerville Mental Health and Retardation Center, Cambridge, Mass., has the task of maximizing community services to elderly patients discharged from state psychiatric hospitals. GT-ACS is staffed by one nurse and two mental health workers under the part-time supervision of the psychiatrist-director. The team served 195 patients between July 1974 and April 1978. In order for the

community to become a viable treatment setting for discharged elderly state psychiatric hospital patients, the treatment strategy has had to consider patient, institutional and economic issues; each of these is discussed in turn. GT-ACS has been able to provide an improved service to the de-institutionalized patient because it has been given the sole responsibility for this population, recruiting its own staff, defining staff roles, and developing new programmes geared to the needs of its elderly patients.

1692. SMITH, L. **Communication skills.** *Nursing Times*, London, 1979, May 31, vol. 75, no. 22, pp. 926-929.

Process recordings, that is, written records of verbal exchanges between nurse and patient can be used in teaching communication skills to psychiatric nurses. The student chooses a patient, and nurse and patient then meet for about 15 minutes daily to discuss any problems the patient may have. Most students find initial contact difficult, but gain in confidence. Patients seem to benefit from the individual attention received. Recordings are submitted weekly to the tutor for supervision and help with any student anxiety is given. Students generally write about the interaction after it is over, but tape recorders are sometimes used. Often students feel frustrated at the lack of response shown by psychiatric patients, but if the relationship has been successful, ending it is often a difficult task. Although not an end in themselves, process recordings may be used to plan care and help the nurse to assess patient behaviour. Two examples of recordings are given.

1693. **The good life at Goodmayes.** *Health and Social Service Journal*, London, 1979, May 25, vol. 89, no. 4643, pp. 633-635.

The Goodmayes group home scheme is run for long stay psychiatric patients who are selected on grounds of keenness, ability to get on with others and competence in carrying out domestic tasks. Lack of clinical stability provides the most difficult problems. Careful preparation is given before patients join a small group home, or other type of supported living. Selected patients first spend the day only at a group home and later live there all the time, with regular visits from the community nursing team who assess how the scheme is working. The scheme is now run by the Goodmayes Housing Association and there are four group homes. Residents have reacted well to group living, but the question of how much support they need and for how long still remains unanswered.

1694. LINDEGÅRD, B. Forskning kring den nya och den gamla psykiatrin. **[Research into new and old forms of psychiatric care and treatment.]** *Sjukhuset*, Göteborg, 1979, vol. 56, no. 4, pp. 241-244.

Psychiatric research must be directed towards finding the causes of nervous disease and preventing it. Depressive anxiety neurosis (*Angstdepression*) is a sadly common feature of everyday life, particularly amongst middle-aged men, and especially in teachers and doctors. The daily consumption of anti-depressive drugs in Gothenburg is over three times that per thousand inhabitants in the Stockholm area. This cannot be due to differences in population but to differences in medical prescribing practice, and these in turn can be traced back to the University attended and the personalities of its leading teachers. Depressive anxiety neurosis is a suitable subject for study because it is

widespread, serious, easily and cheaply identified, and because it can be effectively treated and followed up. A related area deserving careful attention is the prevention of suicide. Finally, ideal programmes of rehabilitation have yet to be developed. The psychiatry clientelle is changing; there are fewer schizophrenias, child psychiatric problems and senile dementias, but more cases of drug abuse, paranoia and subnormality.

1695. DAVIS, D. and ALLEN, R. **The evolution of a management information system in an outpatient mental health institute.** *Administration in Mental Health*, New York, 1979, vol. 6, no. 3, pp. 225-239.

The authors describe the development of a management information system (MIS) in the large out-patient division of the Texas Research Institute of Mental Sciences in Houston. The system is based on management by objectives and provides: (i) defined objectives for each of the eight clinics in the division; (ii) measurements of attainment levels; (iii) feedback to both administrative and clinical staff; (iv) recommendations from findings; and (v) incorporation of findings in the management of the clinics. The form used to store information includes the number of patient contacts per month, the rate of goal attainment and details of staff training. After it had been running for some time, the system was adjusted to provide continuous information about each clinic's performance. However, the use of the system is limited in certain clinics and separate termination reports describing levels of patient attainment provide a useful supplement. It is the responsibility of the mental health administrator to create a MIS network which generates data to meet administrative, clinical and legislative needs.

1696. MURPHY, S. A. **Patients' and staff's perceptions of therapy and milieu in a short-term private psychiatric hospital.** *International Journal of Nursing Studies*, Oxford, 1979, vol. 16, no. 2, pp. 159-167.

While the private psychiatric hospital is assuming an increasingly important role in the United States, there is negligible documentation of what happens to patients in this setting. The primary purpose of this study of 92 patients in a 56-bed hospital was to compare perceptions of patients and staff regarding the value of various therapeutic procedures and programmes. An additional purpose was to determine whether data could be gathered simply and systematically in order to promote more effective evaluation of in-patient psychiatric care. The main conclusions were: (i) patient and staff perceptions compared very similarly when both groups ranked 21 items on a four-point scale; and (ii) both patients and staff emphasized the importance of intervention over milieu. Suggestions are made for further study.

1697. GILLOTT, J. S. and others. **The sectorisation of a large hospital for the mentally handicapped.** *Hospital and Health Services Review*, London, 1979, June, vol. 75, no. 6, pp. 189-197.

This article describes the sectorization of Darenth Park Hospital, Kent, a large hospital for the mentally handicapped, serving four Area Health Authorities. Sectorization is the grouping of wards together under one clinical team and assigning patients drawn from a certain part of the catchment area to those wards. The major objective of the re-organization was to enable all members of a team to care for a

defined group of patients and to involve those patients with their place of origin. It took just over three years to complete the various stages of sectorization. The meetings with the District and Area Management Teams, the setting up of sector teams, the distribution of wards and the assessment and allocation of patients are described. The complete changeover took place smoothly on 22 November 1977. The new organization was explained to staff, patients, relatives and community organizations by the Hospital Management Team, and hostility to the scheme was gradually overcome. The creation of sector teams has: (i) improved communications within the hospital; (ii) proved popular with Community Health Councils; and (iii) raised standards of patient care.

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